Landscape in Connection with Tree Planting, No. 2.

NOTWITHSTANDING Kent's mistakes, so many country-seats were capable of great improvement by merely clearing away redundant formality, the painter's ideas were not entirely neglected, and, accordingly, "improvement by abstraction," as it has been expressed, became the vogue. A sweeping sentence was soon pronounced against every right line and right angle. The Dutch and Italian designs quickly disappeared. The venerable avenues were uprooted; the airy terrace, with its verdant slopes, were levelled with the general surface of the ground; all the nicely clipped hedges and arcades, the pyramids and globes—all were banished from the lawn and gardens; insulated clumps replaced the hedge-row trees.

The regularity of the old style was recklessly proscribed, to admit the irregularity of the new, and thousands of places were sacrificed. Even Sir Uvedale Price was infected with the mania, and ever after regretted his hasty operations; he admitted that to depart from the old style by introducing the irregularity of the new, was not all that was wanted to give to new scenery a truly natural character.

Correct grouping, it was soon found, was one of the first principles of landscape-gardening. Massive plantings, dissociated from groups of trees and bushes, would appear stiff, heavy, and unnatural, as well as totally devoid of interest to the painter. In associating groups with masses, the best and most natural effect, and that which gives the greatest expression, is generally attained by first placing the largest group or cluster in advance, and pretty near to a projection of the mass, and smaller ones about these. Thus the depth of bay in the mass is augmented, and the projection increased. A few small groups of low-growing trees, placed in the bays at intervals, make the depth more intricate, but care must be taken not to lessen the depth, nor to fill the bay too much. A mass of trees of even half an acre in extent, requires several smaller groups to proceed from it by degrees. A broken, loose appearance, producing effective light and shade, would thus be attained; the mass itself ought not to appear one dense body, but should have its monotony broken by parts being left unplanted.

We shall continue some brief remarks on this topic in a future number. At present, let us turn to our illustrations, and continue our examination of groups.

As in the case represented in Figs. 4 and 5, so is the wry group (Fig. 7) highly improved in Fig. 8. Again; the striking transition of character between a spruce or a larch and a round-headed tree (Fig. 10), is improved by making the spiral tree a central object (Fig. 11). An effective and balanced group may be made of seven or eight trees, or more, if two of them be placed only a foot or two apart; a third, three or four feet further off; and the rest at various distances—say from five to thirty feet—the taller ones appearing midway, similar to the two larches represented at Fig. 9; but if one or two tall trees appeared on one side, this balance would be no longer maintained.

A group of Scotch firs, or other pines, spruces, or evergreens, of any kind, having a larch, elm, birch, or some other deciduous tree, on one side, would be objectionable; but place these judiciously inside, and the effect will be good.

* See Frontispiece.

Where two trees only are planted together, they should invariably be of one kind, or so nearly allied to each other as not to appear very different, either in form or color. Nothing, in the association of trees, can be more defective or offensive to the sight than two of decidedly opposite characters. The ramified arms of the sycamore could never be made to blend happily with the delicate birch (Fig. 12), or the round-headed lime with the spruce fir (Fig. 10).

PARIAN WARE.

A BEAUTIFUL flower-stand in Parian ware, is one of the many forms into which this elegant material has been wrought. The stand has been exhibited in the windows in Chestnut Street, and our artist has faithfully copied it.

The annexed flower-vase is a specimen of Swiss carving in wood; the delicate imitative sculpture which it exhibits, is white, and reflects credit upon the ingenuity of the artist. These sculptures are becoming quite the vogue, and it would not do for a work devoted to rural art, to neglect entirely such rustic productions.

INTERMEDIATE NATIVE FRUIT REPORT.

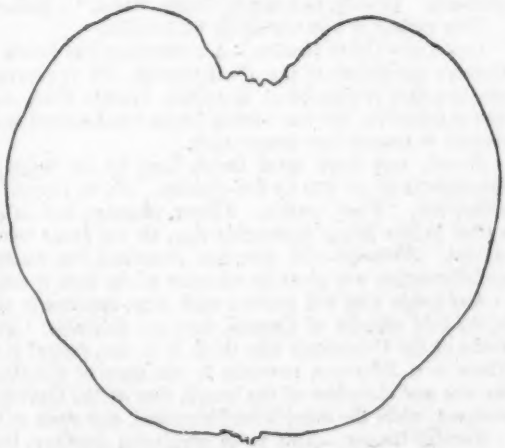
The Committee of the American Pomological Society on Native Fruits, respectfully submit to the President of the American Pomological Society its first Intermediate Report. In presenting these Reports, the Committee is aware of the labor that will be encountered, and the responsibility that must necessarily be assumed. A correct estimate of the merits of a new fruit, examined for the first time, is no easy task. Due allowance must be made for the difficulty of ascertaining the precise period when a new fruit has arrived at its full maturity. But as the chances are greatly in favor of its not being examined exactly at the proper time, its excellence will be more likely to be underrated than the reverse. On this account, many varieties have, no doubt, been consigned to the tomb of the Capulets that richly deserved a more enduring existence. The Uwchlan Pear is an instance in point. On its first presentation, it was condemned as worthless by an able and intelligent fruit committee, that would most assuredly have regarded it as a variety of the greatest excellence had it been examined at the right moment.

Catawissa Raspberry.—This fine new ever-bearing Raspberry is a native of Catawissa, Columbia County, Pennsylvania, and has been brought into notice by Mr. Joshua Peirce, of Washington, D. C. A plant that had withstood, without protection, the unprecedented and intense cold of last winter, was examined on the 7th of September. At that time it was loaded with blossoms, ripe fruit, and unripe berries, in all the intermediate stages.

Size of Berry, rather large, some being three-fourths of an inch in diameter. *Form*, roundish-oblate, or, more correctly, hemispherical. *Skin*, of a deep crimson color, thickly covered with bloom. *Flavor*, fully equal to the so-called, but spurious, Antwerp Raspberry of the Philadelphia market. *Quality*, "very good." This variety is an ever-bearer, wonderfully productive, and worthy of cultivation.

Titus Peach.—This fine new Peach originated with Mrs. Sarah Titus, No. 64 Ogden Street above Eleventh, Philadelphia. Specimens of the fruit were exhibited at the annual fair of the Pennsylvania Horticultural Society, in 1856.

Size, large, 2 and 9-16th inches in length by 2 and 3-16ths broad. *Form*, roundish. *Skin*, fair yellow, with a red cheek. *Cavity*, open. *Stone*, deeply cut, 1¾ inches long, 1¼ wide, ⅞ thick—free. *Flesh*, yellow, red next the stone, juicy, unadherent. *Flavor*, luscious. *Quality*, "best." *Maturity*, from the middle to the last of September. Eaten September 29, 1856.



Titus Peach.

REBECCA GRAPE.—This delicious new Grape is an accidental seedling, that sprung up in the garden of Mr. E. M. Peake, of Hudson, New York, and has been in bearing for the last five years. Specimens were shown, in 1856, at the annual exhibition of the Pennsylvania Horticultural Society—subsequently, at the recent biennial meeting of the American Pomological Society, and at the United States Agricultural Fair, in Philadelphia. It was described, and its history given, in the report of the Committee at the Rochester Meeting. Specimens received since that time, enable us to give a still more complete and accurate description.

Bunch, of fair size, about six inches in length, and very compact in form. *Berry—Size*, full medium, three-fourths of an inch long by five-eighths broad. *Form*, neither round nor oval, but obovate. *Skin*, thin, semi-diaphanous, greenish white, sometimes tinged with amber, and covered with a thin, white bloom. *Flesh*, very juicy, melting, and tender in texture without being pulpy. *Flavor*, rich, saccharine, and vinous, with a peculiar luscious aroma, distinct from that of any other grape. *Seed*, small, usually two, often three or four, and rarely five, in each berry. *Quality*, "best." *Maturity*, middle of September. *Leaf*, scarcely of medium size, about seven inches long, and seven in width, very deeply lobed, and coarsely and sharply serrated; upper surface, light green, and slightly rough; under surface, covered with a thin, whitish down; nerves, prominent; petiole, rather slender.

The sterling merit of this new and very superior native variety, will cause it to be rapidly diffused over the country.

WILMINGTON GRAPE.—This new native Grape was shown, by Mr. Edward Tatnall, of Delaware, at the United States Agricultural Fair, held in Philadelphia, in 1856; and, from the investigations of Dr. L. P. Bush, of Wilmington, Delaware, it is believed to have originated in that city.

Bunch, of good size, 4½ inches long by 3½ broad; not compact; sometimes shouldered. *Berry—Size*, eleven-sixteenths of an inch long by eleven-sixteenths in its transverse diameter. *Form*, round, slightly inclining to oval. *Skin*, yellowish green. *Flesh*, tender in texture, and not pulpy. *Flavor*, saccharine and pleasant. *Quality*, as a native Grape, "best." *Maturity*, last of September.

This variety is well worthy of cultivation.

CANADIAN CHIEF GRAPE.—A remarkably fine bunch of this Grape was received through the Editor of the *Horticulturist*. It is represented to be a hybridized seedling that originated at Hamilton, Canada West, and is said to be hardy and very productive, the vine having borne one hundred and thirty-four clusters from sixteen to twenty-four ounces each.

Bunch, very large, seven inches long by six broad; compact. *Berry—Size*, five-eighths of an inch by five-eighths. *Form*, round. *Skin*, green, with a faint amber tint. *Flesh*, tender. *Flavor*, pleasant, but subacid, probably from being pulled before being thoroughly ripe, as the seeds were evidently somewhat immature. *Maturity*—the specimen examined was received in November, though no information was given in reference to the time it was taken from the vine.

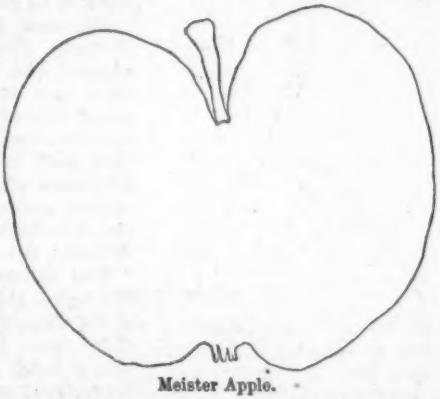
Any grape that will produce such large bunches in the open air, and especially in the cold climate of Canada, must be desirable. But is it a native variety? Some of the Committee who think it is not, regard it as the White Sweetwater. There is a difference, however, in the time of ripening of the two as well as in the size and character of the bunch, that of the Canadian Chief being large and compact, while the other is medium-sized, and open or loose in its structure.

ARCHER GRAPE.—This is an accidental seedling, that sprung up, five or six years ago, in the garden of Mr. Ellis S. Archer, at the N. W. corner of Seventeenth and Arch Streets, Philadelphia.

Bunch, rather large, five inches long by four in width. *Berry—Size*, full medium, eleven-sixteenths of an inch long by eleven-sixteenths broad. *Form*, round, inclining to oval. *Skin*, greenish-white, and, where exposed to the sun, of an amber tint, covered with a dense white bloom. *Flesh*, not pulpy, juicy. *Flavor*, sweet and pleasant. *Quality*, "very good." *Maturity*, eaten on the 5th of November.

The leaf of this variety presents strong indications of a foreign parentage; and though, from this circumstance and its late period of maturity, it may not succeed well at the north, yet it might prove valuable in a southern latitude.

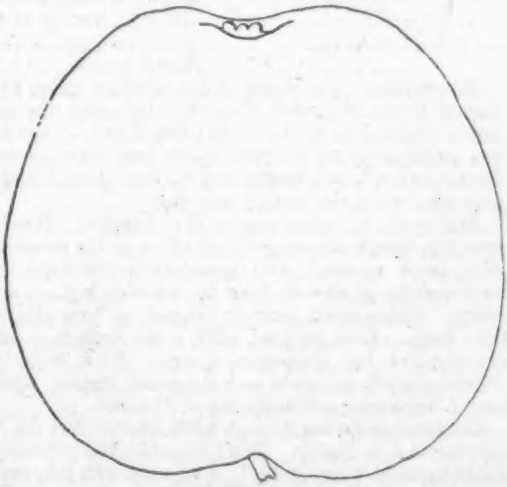
MEISTER APPLE.—Specimens of this variety were received from Mr. Charles Kessler, of Reading, Berks County, Pennsylvania. It is believed to have originated in Berks County.



Meister Apple.

Size, below medium, 2½ inches long by 2¾ broad. *Form*, roundish—conical. *Skin*, greenish-yellow, striped with red, with numerous white spots containing, sometimes, a russet point in the centre, and many russet dots and short concentric curvilinear lines in and around the basin. *Stem*, from three-eighths to one-half an inch long by one-eleventh thick, inserted in a wide, moderately deep cavity. *Calyx*, small, closed, set in a narrow, shallow basin. *Core*, medium. *Seed*, light brown, obovate, one-third of an inch long, three-sixteenths broad, one-eighth thick. *Flesh*, tender. *Flavor*, sprightly and pleasant. *Quality*, "very good." *Maturity*, eaten on the 3d of October.

CHRISTIANA APPLE, (R. 9, T. 10).—This beautiful apple originated near Wilmington, Delaware, on the premises of Mr. John R. Brinckle, and fruited in 1855, for the first time.

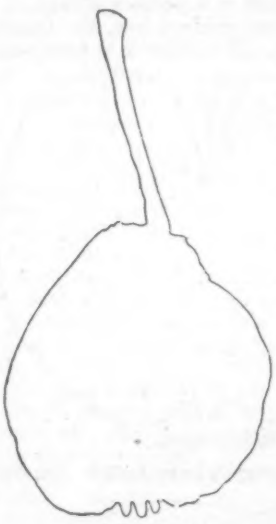


Christiana Apple.

Size, medium, 2¾ inches in length by three in breadth. *Form*, roundish, inclining to conical. *Skin*, beautifully striped and mottled with carmine on a yellowish ground. *Stem*, one-half an inch long by one-eleventh thick, inserted in a deep, rather narrow cavity. *Calyx*, partially closed,

set in a deep, moderately wide, plaited basin. *Core*, small. *Seed*, brownish-gray, many of them triangular, one-third of an inch long, three-sixteenths broad, one-ninth thick. *Flesh*, yellowish white, fine texture, juicy. *Flavor*, pleasant, delicate, sprightly, vinous. *Quality*, "very good." *Maturity*, probably November; the specimen examined was eaten on the 4th of December, when it was overripe.

RITTER PEAR.—Specimens were received from Mr. Louis Ritter, of Reading, Pennsylvania. The tree from which they were obtained was purchased in the spring of 1851, for the Seckel, from an agent of Mr. John Perkins, of Moorestown, New Jersey; but, instead of having a rounded head, it is pyramidal in its growth.



Ritter Pear.

Size, small, 1¼ inches long by 1⅛ broad. *Form*, obovate. *Skin*, greenish-yellow—a good deal russeted, with, occasionally, a faint brown cheek. *Stem*, long, 1¾ inches in length by ¼ thick, inserted without depression. *Calyx*, rather large—set in a shallow, plaited basin. *Core*, medium. *Seed*, small, five-sixteenths of an inch long, three-sixteenths wide, one-eighth thick. *Flesh*, fine texture, melting, and buttery. *Flavor*, saccharine, with the full Seckel aroma. *Quality*, "best." *Maturity*, October 29.

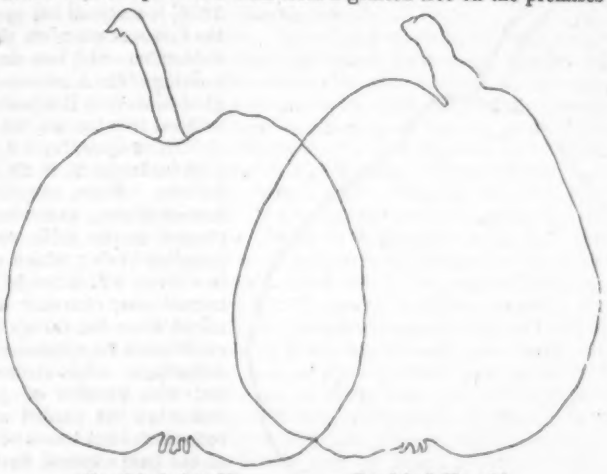
This variety may prove to be the Seckel, although it appears to differ from it in the length of the stem, time of ripening, and in the shape of the tree. It is possible, however, that these several points of difference may be merely accidental departures from the normal condition of the Seckel, without being permanent characteristics. Should this not be the case, then the Ritter is worthy of cultivation, chiefly because it will prolong, in another variety, the delicious Seckel aroma.

DAVIS PEAR.—Specimens of this seedless native Pear were received from Mr. Samuel Davis, Haverford Township, Delaware County, Pennsylvania—six miles from Philadelphia, on the Westchester Road. They were produced by a grafted tree on his premises, the graft having been taken, about twenty years ago, by Mr. Davis's father, from a seedling on the farm of his neighbor, Mr. Adam Litzenberg, soon after which the original tree died.

Size, small, 1¾ inches long by 1⅝ in breadth. *Form*, rather variable, sometimes roundish, usually obtuse-pyriform, widest at the crown, and obscurely pentangular. *Skin*, much russeted, with occasionally marblings of greenish-yellow. *Stem*, three-eighths of an inch long by one-eighth thick, inserted in a very shallow cavity. *Calyx*, small, partially reflexed, set in a wide, somewhat irregular, superficial basin. *Core*, medium, solid, being entirely devoid of seed cavities. *Seed*, not abortive, but altogether absent. *Flesh*, buttery, gritty around the core. *Flavor*, slightly aromatic, and somewhat vinous. *Quality*, "good." *Maturity*, last of September and beginning of October.

This seedless variety, though much smaller than the *Poire sans Pepins*, is much superior to it in quality. Were it not for the grittiness near the core, the Davis would be rated "very good." And even with this objectionable feature, it commands a good price in the Philadelphia market.

FRANKFORD PEAR.—Specimens of this new variety were received from Mr. Robert Cornelius, who procured them from a grafted tree on the premises of Mr.



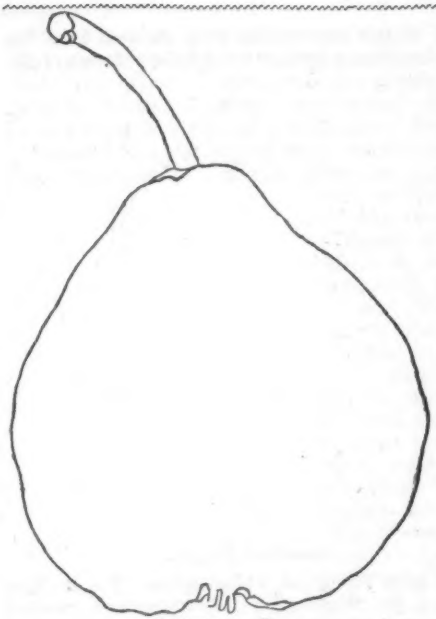
Frankford, Oct. 29. Frankford, Nov. 14.

Eli Merkins, a mile and a quarter from Frankford, Philadelphia. The seedling from which the grafts were obtained, Mr. Merkins found, four years ago, growing on the bank of Frankford Creek, near the bridge, and having on it three or four pears. The following year, he again saw it in fruit, and found the specimens of so good a quality, that he determined to remove the tree to his own premises. This he accomplished at the proper season, taking the precaution, at the same time, to insert several grafts from it into a large, white Doyenné that stood on his grounds. The original tree perished, but, fortunately, the grafts succeeded, and from them were produced the specimens examined by the Committee.

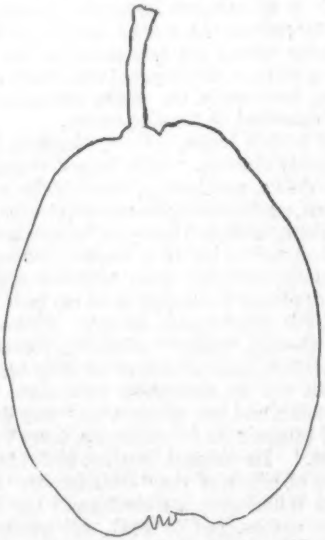
Size, medium, 2¼ inches long by 2 and 5-16ths broad. *Form*, roundish, sometimes inclining to pyriform, not unfrequently obovate. *Skin*, yellow, containing many russet dots, especially towards the crown, and having, occasionally, a faint blush on the part exposed to the sun. *Stem*, usually about thirteen-sixteenths of an inch long by one-sixth thick, sometimes short, thick, and fleshy, at its termination; inserted in a small cavity. *Calyx*, medium, open; set in a shallow, moderately wide basin. *Core*, medium. *Seed*, generally abortive; when perfect it is ovate, dark brown, an angle at the obtuse end, plump, three-eighths of an inch long, one-fifth wide, one-seventh thick. *Flesh*, fine texture, and buttery. *Flavor*, exceedingly rich, with a delicious aroma. *Quality*, "best." *Maturity*, November.

This new native Pear is a decided acquisition, and, as soon as its value becomes known to the pomological community, it will be extensively cultivated. One specimen was examined on the 29th of October, and was pronounced "very good." But, on the 14th of November, when it attained its full maturity, there was no hesitation in placing it among the "best." Its original locality, in Frankford, was in the immediate vicinity of the place of origin of the "Philadelphia" Pear.

WILMINGTON PEAR (1847, E. 1).—The Wilmington is a seedling of the Passe Colmar, raised from seed planted by the undersigned in 1847, and grafted on quince in 1850. This grafted tree fruited for the first time in 1855, and bore



Wilmington Pear.



Ontario Pear.

only a single specimen, which was eaten on the 2d of October. In 1856, it matured ten specimens; the first was eaten on the 9th of September—the last during the meeting of the American Pomological Society in Rochester. The original tree has not yet fruited.

Size, medium, from 2 and 11-16th inches by 2½ to 2⅞ by 2 and 5-16ths. *Form*, sometimes obtuse-pyriform, somewhat compressed at the sides, sometimes roundish-ovate; which of these two forms will ultimately be the normal one, can only be determined when the variety has fully established its characteristic peculiarities. *Skin*, cinnamon russet, with patches of greenish-yellow on the shaded side, and sometimes faint traces of carmine on the part exposed to the sun, with occasionally a number of black dots, encircled by a carmine margin. *Stem*, somewhat variable, from 1½ inches by one-eighth to one and one-fourth by one-sixth, of a uniform, cinnamon color, curved; inserted obliquely in a small cavity, and, in some instances, without depression. *Calyx*, medium, with short, erect segments, set in a wide, rather deep, sometimes slightly furrowed basin. *Core*, medium. *Seed*, dark brown, acuminate, with an angle, at the obtuse end, three-eighths of an inch long, three-sixteenths wide, and one-eighth thick. *Flesh*, fine texture, melting, and buttery. *Flavor*, rich and saccharine, with the delicious aroma of the Passe Colmar. *Quality*, "best." *Maturity*, September. Eaten, October 2, 1855.

ONTARIO PEAR.—This new native Pear was concisely noticed in our Rochester Report. Since that time, other specimens have been examined, which enables the Committee to give a more full

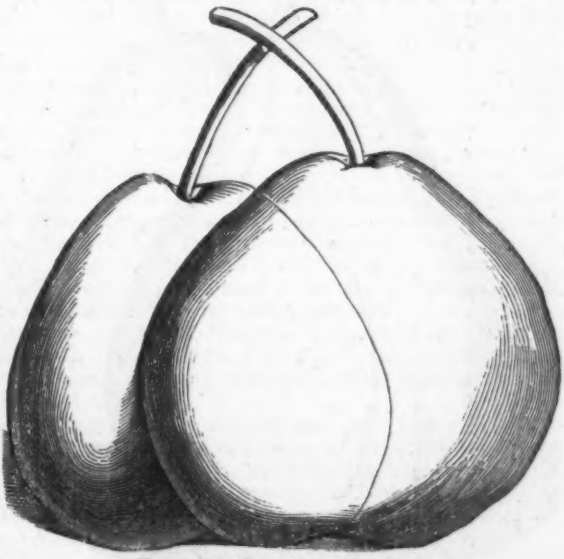
description of the variety. The Ontario is a seedling of the Canandaigua. It originated at Geneva, Western New York, and, in its general appearance, bears a considerable resemblance to the Washington.

Size, 2⅝ inches by 2 and 1-16th. *Form*, long, obovate, inclining to pyriform. *Skin*, greenish-yellow, with numerous pale green dots, which become russet on the shaded side, and sometimes carmine on the side exposed to the solar rays. *Stem*, three-fourths of an inch long by one-tenth thick, inserted, by a fleshy termination, in a slight depression. *Calyx*, medium, open, set in a wide, shallow, furrowed basin. *Core*, medium. *Seed*, light brown, long-obovate, three-eighths of an inch long, three-sixteenths wide, and one-eighth thick. *Flesh*, fine texture, buttery. *Flavor*, sugary and rich. *Quality*, "very good." *Maturity*, last of September.

HUNTINGTON PEAR.—Specimens of this and the two succeeding varieties, were exhibited at the late meeting of the Society at Rochester, by Mr. S. P. Carpenter, of New Rochelle, New York, and were noticed in the Report of the Native Fruit Committee, but not minutely described. Since the adjournment of the Society, other specimens, through the kindness of Mr. Carpenter, have been received, and examined, and a visit to the original trees has been made by a member of the Committee.

The Huntington was found growing in the woods, and, while small, was taken up by the late James Huntington, Esq., of New Rochelle, and planted in front of his residence. The tree is now twenty or thirty years old, and pyramidal in its growth. Having been planted in a shallow, stony piece of ground, it does not appear to thrive well, although it produces fruit of an excellent quality.

Size, rather under medium, 2 inches long by 2 and 5-16ths broad. *Form*, roundish-obovate, broad at the crown, tapering to the base, sometimes resembling in appearance the Vesouziere. *Skin*, yellow, with a number of russet dots, and not unfrequently a red cheek. *Stem*, from five-eighths to one inch long by one-eighth thick, inserted in a moderately open cavity, which occasionally is quite wide and shallow. *Calyx*, rather large, set in a wide, not very deep basin. *Core*, medium. *Seed*, dark brown, obovate, five-sixteenths of an inch long, three-sixteenths broad, one-eighth thick. *Flesh*, fine texture, and buttery. *Flavor*, slightly vinous, with a peculiar, delicate aroma. *Quality*, "very good." *Maturity*, middle of September.

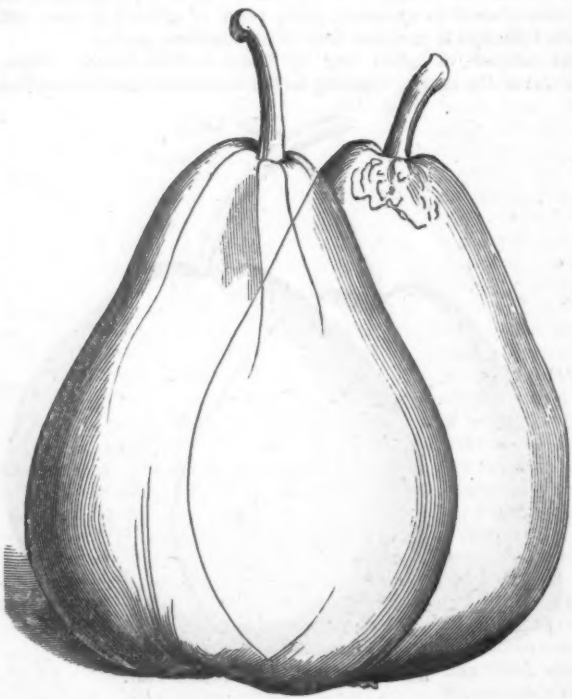


Huntington Pear. Church Pear.

CHURCH PEAR.—The Church Pear is believed to be a seedling raised by an old Huguenot settler at New Rochelle. The original tree stands on the premises of L. P. Miller, Esq., and is presumed to be nearly a hundred years old. It bears, annually, from fourteen to twenty bushels of fruit, is uncommonly healthy and vigorous, having no decayed limb about it, and spreads its lordly head over three or four square rods. The trunk, two feet above the ground, is six or seven feet in circumference.

Size, medium, 2 and 3-16th inches in length by 2 and 5-16ths in breadth. *Form*, short-turbinate, largest in the middle, and tapering both ways. *Skin*, greenish-yellow, russeted at the base and crown, with occasionally russet markings on other portions of the exterior. *Stem*, long, from 1 to 1⅜ inches by ⅛ in thickness, of a cinnamon color, and inserted without depression. *Calyx*, closed, with short segments, set in a moderately wide, plaited basin. *Core*, medium. *Seed*, brown, ovate, with an angle at the obtuse end, one-third of an inch long, one-fifth broad, one-eighth thick. *Flesh*, of fine texture, and buttery. *Flavor*, mild, pleasant, and sufficiently saccharine. *Quality*, "very good." *Maturity*, commences ripening about the middle of July, and continues till the end of September.

Future observation will determine whether or not the Clark Pear, of Connecticut, the Bergamot of Dr. Bloodgood, of Flushing, the Sallaignac, of Germantown, and Carr's Autumn Bergamot, are synonymous with the Church of New Rochelle.



Parsonage Pear. Selleck Pear.

PARSONAGE PEAR.—The Parsonage is also believed to have originated at New Rochelle. It stands on the premises of the Rev. Dr. R. M. Morgan, and is a constant and abundant bearer, of from ten to twenty bushels annually.

Size, large, 3¼ inches in length by 2½ in width. *Form*, pyriform, usually rounded at the base, sometimes long-turbinate. *Skin*, yellow, interspersed with numerous russet dots,

a good deal russeted at the base, and russet markings at the crown. *Stem*, five-eighths to six-eighths of an inch long by one-sixth thick, inserted, with little or no depression, by sometimes a fleshy termination. *Calyx*, medium; segments, short and stiff, and set in a very shallow, slightly plaited basin. *Core*, small. *Seed*, dark brown, acuminate, three-eighths of an inch long, three-sixteenths wide, one-eighth thick. *Flesh*, somewhat granular in texture, and buttery. *Flavor*, vinous. *Quality*, "good"—at least, perhaps "very good." *Maturity*, last of September.

SELLECK PEAR.—A box containing fine specimens of this Pear was sent, by Mr. Albert Bresee, of Hubbardton, Vermont, to the recent meeting of the American Pomological Society at Rochester. Having, however, been accidentally misplaced, it was overlooked till after the adjournment of the Society. The specimens were accompanied by a letter from Mr. B., in which it was stated that the tree, supposed to be the original one, was planted, between the years 1818 and 1825, on the farm of Mr. Columbus Selleck, Seedbury, Vermont, where it now stands.

Size, large, sometimes very large, usually 3½ inches long by 2 and 11-16ths in width. *Form*, obovate-pyriform, sometimes roundish-obovate, with a more or less distinct neck, and uneven surface. *Skin*, thick, yellow, with many large, russet dots, and rarely a red cheek. *Stem*, 1¼ inches long by ¼ thick, curved, inserted somewhat obliquely, by a fleshy termination, into a slight cavity, which is sometimes nearly obsolete. *Calyx*, small, segments erect, set in a shallow, contracted, plaited basin. *Core*, medium. *Seed*, black. *Flesh*, rather coarse in texture, buttery. *Flavor*, some resemblance to that of the Bartlett, but more saccharine. *Quality*, "very good." *Maturity*, end of September and beginning of October.

WATERMELONS.—The "Mountain Sweet" Watermelon has, for many years, been universally conceded to be the best market variety cultivated in the Middle States. Of late, however, it has lost some of the qualities that recommended it so highly to favor. This deterioration has probably been owing to the influence of pollen from inferior kinds grown in its vicinity. For the last three years, a member of the Committee has been procuring, from the South, and chiefly from the interior of South Carolina, seed of many new watermelons of high repute, and disseminating them. During the past season, fine specimens of some of these kinds were received, and the opportunity thus afforded of ascertaining their merits has not been neglected. At least four of them are unquestionably equal in quality to the Mountain Sweet when in its highest state of perfection; these are the Clarendon, Souter, Ravenscroft, and Bradford. Another, Odell's Large White, though not equal, in some respects, to the four preceding, will, on account of its size and productiveness, become a desirable and profitable variety for market purposes.

CLARENDON WATERMELON.—This fine Watermelon is also known under the name of the Dark Speckled. It originated in Clarendon County, South Carolina, and, when pure, may at all times be readily recognized by the peculiarly characteristic markings of the seed.

Size, large. *Form*, oblong. *Skin*, a mottled gray, with dark green, interrupted, longitudinal stripes, irregular in their outline, and composed of a succession of peninsulas and isthmuses. *Rind*, thin, not exceeding half an inch. *Seed*, yellow, with a *black stripe* extending around the edge, and from *one to three black spots* on each side, the form and number corresponding on the two sides. *Flesh*, scarlet to the centre. *Flavor*, sugary and exquisite. *Quality*, "best."

SOUTER WATERMELON.—This fine Watermelon originated in Sumpter District, South Carolina.

Size, large, sometimes weighing twenty or thirty pounds. *Form*, oblong, occa-

sionally roundish. *Skin*, peculiarly marked with finely reticulated gray islands, separated by pale green straits, and having irregular, dark green, longitudinal stripes, extending from the base to the apex. *Rind*, thin, about half an inch. *Seed*, pure cream white, with a faint russet stripe around the edge. *Flesh*, deep red to the centre. *Flavor*, sugary and delicious. *Quality*, "best." *Productiveness*, said to be unusually great.

RAVENSCROFT WATERMELON.—This valuable Watermelon originated with Col. A. G. Summer, of South Carolina.

Size, large. *Form*, oblong. *Skin*, dark green, faintly striped and marked with green of a lighter shade, and divided, longitudinally, by sutures, from an inch and a quarter to two inches apart. *Rind*, not more than half an inch in thickness. *Seed*, cream color, tipped with brown at the eye, and having a brown stripe around the edge. *Flesh*, fine red, commencing abruptly at the rind, and extending to the centre. *Flavor*, delicious and sugary. *Quality*, "best."

BRADFORD WATERMELON.—The Bradford is a highly prized South Carolina Watermelon.

Size, large. *Form*, oblong. *Skin*, dark green, with gray, longitudinal stripes mottled and reticulated with green. *Rind*, not exceeding half an inch in thickness. *Seed*, yellowish white, slightly mottled, and with a yellowish-brown stripe around the edge, *Flesh*, fine red to the centre. *Flavor*, fine and sugary. *Quality*, "best."

ODELL'S LARGE WHITE WATERMELON.—This immense Watermelon originated with a negro man on the property of Col. A. G. Summer, of South Carolina.

Size, very large, sometimes weighing sixty pounds. *Form*, round. *Skin*, gray, with fine green network spread over its uneven surface. *Rind*, nearly three-fourths of an inch in thickness. *Seed*, large, grayish black, and not numerous. *Flesh*, pale red. *Flavor*, fine. *Quality*, "very good." *Productiveness*, said to exceed that of most other kinds.

The large size and long-keeping quality, after being separated from the vine, will recommend this variety—especially for the market.

W. D. BRINCKLE, M. D., *Chairman*.

A SHORT ACCOUNT OF THE LIFE AND WRITINGS OF JOHN CLAUDIUS LOUDON.

BY HIS WIDOW.

(CONCLUDED FROM PAGE 64.)

In the year 1827, Mr. Loudon suggested the idea of planting some public walk according to the natural system, and naming the trees in the way that has lately been done in Kensington Gardens. The same year, the first notices were inserted of horticultural societies offering premiums for the production of certain vegetables, flowers, and fruits—a plan which has since been carried to a very great extent.

In the year 1828, the *Magazine of Natural History* was begun, being the first work of its kind; and this work, though not quite so successful as the *Gardener's Magazine*, was very popular, and has had numerous imitators. Towards the close of this year, Mr. Loudon paid another visit to the Continent, to obtain information for a new edition of the *Encyclopædia of Agriculture*. After traversing France, he proceeded through Strasburg to Munich and Stuttgard; he afterwards visited Heidelberg and Carlsruhe, and returned by Metz to Paris, and thence to England. In the *Gardener's Magazine* for 1828, he began to give an account of this tour, and he continued it through several of the succeeding volumes, inter-

spersing the descriptions of the various places he saw with a mass of valuable reflections on various subjects, which he conceived would be useful to gardeners. In the following year, 1829, he suggested the idea of having breathing zones, or unoccupied spaces half a mile broad, at different intervals around London; and, in the next article to this, he first suggested the idea of making use of the manure now carried to waste by the common sewers, a plan which has since engaged the attention of many talented persons. Another plan suggested by him about this period, was for establishing national schools, or, as he termed them, parochial institutions for education. In the same volume, is a suggestion for the establishment of a gardeners' fund for the relief of the widows and families of deceased gardeners.

About this time, Mr. Loudon formed his first acquaintance with me. My father died in 1824, and finding, on the winding up of his affairs, that it would be necessary for me to do something for my support, I had written a strange, wild novel, called "The Mummy," in which I had laid the scene in the twenty-second century, and attempted to predict the state of improvement to which this country might possibly arrive. Mr. Loudon chanced to see the review of this book in the *Literary Gazette*, and as, among other things, I had mentioned a steam-plough, it attracted his attention, and he procured the work from a circulating library. He read it, and was so much pleased with it, that he published, in the *Gardener's Magazine* for 1828, a notice of it under the head of "Hints for Improvements;" and he had from that time a great desire to become acquainted with the author, whom he supposed to be a man. In February, 1830, Mr. Loudon chanced to mention this wish to a lady, a friend of his, who happened to be acquainted with me, and who immediately invited him to a party, where she promised him he should have the wished-for introduction. It may be easily supposed that he was surprised to find the author of the book a woman; but I believe that, from that evening, he formed an attachment to me, and, in fact, we were married on the 14th of the following September.

Immediately after our marriage, Mr. Loudon began to rewrite the *Encyclopædia of Gardening*, which was published in the course of the year 1831. On the 1st of October, 1830, he published the first part of a work, in atlas folio, entitled "Illustrations of Landscape Gardening and Garden Architecture;" but, from the very expensive nature of the work, and the limited number of subscribers, he found it necessary to discontinue it, and it did not proceed beyond the third part, which appeared in 1833. In the beginning of the year 1831, he had an application to lay out a botanic garden at Birmingham, and he agreed to do it merely on the payment of his expenses. On this occasion I accompanied him, and after spending about six weeks in Birmingham (which, though it is my native town, I had not seen for several years), we made a tour through the North of England, visiting the lakes in Cumberland and Westmoreland. It was at Chester that we saw a copy of Mr. Paxton's *Horticultural Register*, the first rival to the *Gardener's Magazine*, which, at the time we were married, produced £750 a year, but which gradually decreased from the appearance of the *Horticultural Register* till the period of Mr. Loudon's death, immediately after which it was given up.

After visiting the beautiful scenery in Westmoreland and Cumberland, we passed through Carlisle, and entered Scotland by way of Longtown and Langholme. It happened that there was a fair at the latter place, and the town was so exceedingly full that they not only could not give us a bed, but we could not even find a place to sit down. When we entered Ayrshire, the county to which Mr. Loudon's family originally belonged, he was received with public dinners at Ayr and Kilmarnock. A public dinner was also preparing for him at Glasgow; but while we were staying

at Crosslee Cottage, near Paisley, the residence of Archibald Woodhouse, Esq., one of his most highly esteemed friends, he received a letter from Bayswater, informing him of the severe illness of his mother, and her earnest wish to see him. Mr. Loudon was warmly attached to his mother, and as, unfortunately, we did not receive the letter till late at night, for we had been dining in the neighborhood, we did not go to bed, but packed up everything so as to be able to set off with daylight the next morning for Glasgow, where we left Mr. Loudon's man with the horse and carriage, and proceeded to Edinburgh by coach, though we could only get outside places, and it rained; besides which, Mr. Loudon had never ridden on the outside of a coach since his knee had become stiff, and he could not ascend the ladder without the greatest difficulty. Nothing, however, could stop him in the performance of what he considered his duty, and, indeed, I believe his eagerness to see his mother overpowered every other feeling. It was also a singular circumstance, that, on his return to Edinburgh, after an absence of nearly thirty years, he should be obliged to pass through it almost without stopping; yet such was the case, as we found, on our arrival at the inn, that a packet was just about to sail for London, and that if we did not avail ourselves of it we should be compelled to wait several days. We, therefore, hurried down to the pier, and finding that the captain of the vessel was just going on board, we hired a boat, and were, luckily, in time to save our passage. We had a very quick voyage, and arrived at Bayswater about half an hour after the letter we had sent from Glasgow to announce that we were coming. Mr. Loudon's mother was so delighted to see her son, that she seemed partially to revive; so much, indeed, that we had hopes of her recovery. Nature, however, was too far exhausted, and she died about six weeks after our return, in October, 1831.

In 1832, Mr. Loudon commenced his *Encyclopædia of Cottage, Farm, and Villa Architecture*, which was the first work he ever published on his own account, and in which I was his sole amanuensis, though he had several draughtsmen. The labor that attended this work was immense; and for several months he and I used to sit up the greater part of every night, never having more than four hours' sleep, and drinking strong coffee to keep ourselves awake. The *First Additional Supplement* to the *Hortus Britannicus* was also prepared and published in 1832.

The great success of the *Cottage Architecture*, which is perhaps the best and most useful of all Mr. Loudon's works, tempted him to publish the *Arboretum Britannicum* also on his own account. He had long intended to write a work on the hardy trees of Great Britain; but he did not contemplate the expenses which he should incur by so doing. When, however, the *Arboretum* was once begun, he found it was impossible to compress it into the limits originally intended; and, in his determination to make the work as perfect as possible, he involved himself in the difficulties which hastened his death. Notwithstanding the immense labor attending the *Arboretum*, which was published in monthly numbers, Mr. Loudon, in March, 1834, began the *Architectural Magazine*, the first periodical devoted exclusively to architecture, though, like the *Magazine of Natural History* and the *Gardener's Magazine*, it only served as a pioneer to clear the way for others, which afterwards followed in the same course with much greater success.

From the year 1833 to midsummer, 1838, Mr. Loudon underwent the most extraordinary exertions both of mind and body. Having resolved that all the drawings of trees for the *Arboretum* should be made from nature, he had seven artists constantly employed, and he was frequently in the open air with them from his breakfast at seven in the morning till he came home to dinner at eight in the evening, having remained the whole of that time without taking the slightest refreshment, and generally without even sitting down. After dinner, he resumed

the literary part of the work, and continued writing, with me as his amanuensis, till two or three o'clock in the morning. His constitution was naturally very strong, but it was impossible for any human powers to bear, for any lengthened period, the fatigue he underwent. In 1838, he began the *Suburban Gardener*, which was also published in monthly numbers, so that he had five monthly works going on at the same time. He soon found, however, that three monthly works, besides the *Arboretum*, were as much as his health would permit him to undertake the management of, and he disposed of the *Magazine of Natural History* to Mr. Charlesworth. In 1838, he also gave up the *Architectural Magazine*, and at midsummer, in that year, he finished the *Arboretum Britannicum*. He was now in circumstances that would have discouraged almost any person but himself. His health was very seriously injured, partly by what was supposed to be a liver complaint, and partly by an enormous swelling in his right knee, which some of the most eminent medical men in London supposed to be produced by a disease in the bone. In addition to the large sums in ready money he had paid to the artists and other persons employed during the progress of the *Arboretum*, he found, at its conclusion, that he owed ten thousand pounds to the printer, the stationer, and the wood engraver, who had been employed on that work. His creditors, however, did not press him for their money, but gave him a chance of reaping the benefit of his labors at some future time, by consenting to wait till they were paid by the sale of the *Arboretum* and the *Cottage Architecture*, upon condition that he placed these works in the hands of Messrs. Longman, to hold for the creditors till the debt was paid.

Notwithstanding the state of his knee, which was now such that he was unable to walk without assistance, immediately on the completion of the *Arboretum* he arranged and published his *Hortus Lignosus Londinensis;* and in the last number of the *Suburban Gardener*, which was finished about this time, he informed the public that he intended to resume his profession of landscape-gardener, and that he would not only go out, but give advice at home, on any plans that might be sent to him. To us, who saw the state of his health, this intimation gave the greatest pain, and we determined to do everything in our power to prevent the necessity of his exerting himself. Two of his sisters learned wood engraving, and I, having acquired some knowledge of plants and gardens during the eight years I had acted as his amanuensis, began to write books on those subjects myself. In the mean time, he grew so much worse, that we had very little hope of his recovery, till he placed himself under the care of William Lawrence, Esq., when that eminent surgeon took a different view of the case from what had been before entertained, and, by his mode of treatment, rapidly restored my husband to health.

In 1839, Mr. Loudon began to lay out the *Arboretum* so nobly presented by the late Joseph Strutt, Esq., to the town of Derby. In the same year, he published his edition of *Repton*, and his *Second Additional Supplement to the Hortus Britannicus*. In 1840, he accepted the editorship of the *Gardener's Gazette*, which, however, he only retained about twelve months.

In 1840, Mr. Loudon, having a great desire to examine some of the trees in the *Jardin des Plantes*, in order to identify the species of Cratægus, went to Paris; and as his health was beginning again to decline, I went with him, taking with me our little daughter Agnes, who was then about seven years of age, and who, from this time, was always the companion of our journeys. We went by way of Brighton, Dieppe, and Rouen, to Paris, ascending the Seine, and we remained in France about two months.

When Mr. Loudon left Scotland so abruptly in 1831, he promised his friends

to return the following year, and indeed, fully intended to do so, but various circumstances occurred to prevent him, and it was not till 1841 that he was able to fulfil his engagement. In the summer of that year, however, soon after the publication of the *Supplement to the Encyclopædia of Plants*, Mr. Loudon, Agnes, and myself, went from London to Derby, and, after spending a few days with our kind and excellent friend, Mr. Strutt, we proceeded through Leeds to Manchester. It rained heavily when we arrived at Leeds, but, Mr. Loudon having determined to visit the Botanic Garden, we went there in a most awful thunder-storm, and the whole of the time we were in the garden the rain descended in torrents. We were all wet, and we had no time to change our clothes, as, on our return to the station, we found the last train to Manchester ready to start, and Mr. Loudon was most anxious to proceed thither without delay. When we arrived at Manchester, he was far from well, but, notwithstanding, the next morning, though it still rained heavily, he insisted upon going to the Botanic Garden. Here he increased his cold, and when we returned to the inn, he was obliged to go to bed. The next morning, however, he would go on to Liverpool, and, though he was so ill there that when we drove to the Botanic Garden he was unable to get out of the coach, and was obliged to send me to look at some plants he wished to have examined, he would sail for Scotland that night. He was very ill during the voyage, and when we landed at Greenock he was in a high fever. He persisted, however, in going by the railway to Paisley, and thence to Croslee Cottage, where we had promised to spend a few days with our kind friends, Mr. and Mrs. Woodhouse. When we arrived there, he was obliged instantly to go to bed. A doctor was sent for, who pronounced his disease to be a bilious fever, and for some time his life appeared in great danger.

It was six weeks before he could leave his bed; but as soon as he was able to sit up he became anxious to resume his labors, and taking leave of our kind friends, we set out on a tour through the South of Scotland, visiting every garden of consequence on our route, and making notes of all we saw. Notwithstanding all he had suffered during his severe illness, and the state of weakness to which he was reduced, he exerted himself to see everything; and he was never deterred, either by fatigue or wet weather, from visiting every garden that he heard contained anything interesting. After travelling about a fortnight we reached Edinburgh, but Mr. Loudon only stayed one night; and, leaving Agnes and me there, he proceeded on the 13th of August alone to Glasgow, on his road to Stranraer, where he was going to lay out the grounds at Castle Kennedy, for the Earl of Stair.

On the 1st of September he returned to Edinburgh, which of course he found greatly changed since he had resided there thirty-seven years before; and, for the next fortnight, he had great pleasure in showing me the places he had known when a boy. On the 13th of September, having hired a carriage at Edinburgh, we set out on our return home by land, and, at Newcastle, we spent two or three days with our friends Mr. and Mrs. Sopwith.

In December, 1841, appeared the first number of the *Encyclopædia of Trees and Shrubs*, the work consisting of ten monthly numbers. The abridgment of the *Hortus Lignosus Londinensis* was published immediately on the conclusion of the *Encyclopædia of Trees and Shrubs*, and in May, 1842, appeared the *First Additional Supplement to the Encyclopædia of Cottage Architecture*.

In addition to the works which have been enumerated, Mr. Loudon contributed to several others, such as the *Encyclopædia of Domestic Economy*, and Brandé's *Dictionary of Science, Literature, and Art*. He also wrote the article "Planting" for the new edition of the *Encyclopædia Britannica*.

Early in March, 1842, he had an attack of inflammation of the lungs, and, on

his recovery, we went down to Brighton for some weeks. We afterwards made a tour through Somersetshire, Devonshire, and part of Cornwall, and, on our return to Exeter, Mr. Loudon went to Barnstaple, in the neighborhood of which he was about to lay out some grounds for Lord Clinton, sending Agnes and myself back to London. When he returned home, I noticed that he had a slight cough, but, as it was trifling, it did not make me uneasy, particularly as his spirits were good. He now finished his *Suburban Horticulturist*, which had been begun two years before, but had been stopped on account of his illness in Scotland; this work was published by Mr. Smith, of Fleet Street, all his other works, from the appearance of the *Encyclopædia of Gardening*, having been published by Longman.

In 1843, his time was chiefly occupied by his work on *Cemeteries*, with which he took extraordinary pains, and which was very expensive, from the number of the engravings. In August, we were invited to Derby to pay another visit to Mr. Strutt, but he was too ill to go, and the doctors pronounced his complaint to be a second attack of inflammation of the lungs.

Previously to Mr. Loudon's illness, I had agreed to write a little book on the Isle of Wight, and to visit it for this purpose. This arrangement I now wished to give up, but his medical men advised us to go, as they thought the air of the Isle of Wight might re-establish his health. Strange to say, up to the time of our leaving home, I had no idea that his illness was at all dangerous; but the fact was, I had seen him recover so often when every one thought he was dying, that I had become accustomed to place little reliance on what was said of his attacks by others. When we reached the Isle of Wight, however, I was struck with a degree of listlessness and want of energy about him that I had never seen before. He became rapidly worse while we were in the island, and most eager to leave it. On our arrival at Southampton, where he was laying out a cemetery, he felt better, and, taking a lodging there, he sent Agnes and myself back to town. In a fortnight I went down to see him, and I shall never forget the change I found in him. The first look told me he was dying. His energy of mind had now returned. He not only attended to the laying out of the cemetery at Southampton, but, during his stay in that town, he corrected the proofs of the second *Supplement* to his *Encyclopædia of Agriculture*, and then went alone to Bath, in spite of my earnest entreaties to be permitted to accompany him. At Bath, he inspected the ground for another cemetery, and also the grounds of a gentleman, though he was obliged to be wheeled about in a Bath chair. He then went, still alone, to the seat of Mortimer Ricardo, Esq., near Enstone, in Oxfordshire, where he was also obliged to be wheeled round the grounds in a chair. When about to leave, he appeared so ill, that Mr. Ricardo offered to send a servant with him to town.

He returned to Bayswater on the 30th of September, 1843, and at last consented to call in medical aid, though he was by no means aware of his dangerous state. He supposed, indeed, that the pain he felt, which was on the right side, proceeded from an affection of the liver, as, both times, when he had inflammation of the lungs, the pain was on the left side. On the 2d of October, I went with him to call on Mr. Lawrence, in whom he had the greatest confidence, and that gentleman told him, without hesitation, that his disease was in his lungs. He was evidently very much struck at this announcement, but, as he had the fullest reliance on Mr. Lawrence's judgment, he was instantly convinced that he was right. I think, from that moment, he had no hope of his ultimate recovery, though, in compliance with the wishes of different friends, he afterwards consulted several other eminent medical men, of whom Dr. Chambers and Mr. Richardson attended him to the last.

As soon as Mr. Loudon found that his disease was likely to prove fatal, he

determined, if possible, to finish the works he had in hand, and he labored almost night and day to do so. He first, with the assistance of his draughtsman, finished a plan for Baron Rothschild, then one for Mr. Ricardo, another for Mr. Pinder, and, finally, a plan for the cemetery at Bath. He had also engaged to make some additional alterations in the grounds of Mr. Fuller at Streatham; he went there on the 11th of October, but he was unable to go into the garden; this was the last time he ever attempted to visit any place professionally. He continued, however, to walk in the open air in his own garden, and in the grounds of Mr. Hopgood, nurseryman, at Craven Hill, for two or three days longer, though his strength was fast decreasing; and, after the 16th of October, he did not leave the house, but confined himself to his bedroom and a drawingroom on the same floor. Nothing could be more awful than to watch him during the few weeks that yet remained of his life. His body was rapidly wasting away, but his mind remained in all its vigor, and he scarcely allowed himself any rest in his eagerness to complete the works that he had in hand. He was particularly anxious to finish his *Self-Instruction for Young Gardeners*, which is published nearly in the state he left it, though, had he lived, it would probably have been carried to a much greater extent. About the middle of November, the medical men who attended my poor husband pronounced his disease to have become chronic bronchitis; and this information, combined with the pressure of pecuniary difficulties, had a powerful effect upon him. He now made an effort that can only be estimated by those who knew the natural independence of his mind, and the pain it gave him to ask even a trifling favor. He wrote a letter stating his situation, and that the sale of three hundred and fifty copies of the *Arboretum* would free him from all his embarrassments. This letter he had lithographed, and he sent copies of it to all the nobility who took an interest in gardening. The result was most gratifying. The letter was only dated the 1st of December, and he died on the 14th of that month; and yet, in that short space of time, the noblemen he appealed to, with that kindness which always distinguishes the English aristocracy, purchased books to the amount of £360. Mr. Loudon had intended to forward similar letters to all the landed proprietors and capitalists; though only a few were sent, they were responded to with equal kindness. Our munificent and noble-minded friend, Joseph Strutt, Esq., took ten copies, and letters from two of our kindest friends (William Spence, Esq., and Robert Chambers, Esq.), ordering copies of the *Arboretum*, arrived the very day he died.

This appeal was principally rendered necessary by the pecuniary difficulties I have alluded to, and which, undoubtedly, hastened his death. The debt on the *Arboretum*, which, as already stated, was originally £10,000, had, by the sale of that book and of the *Cottage Architecture*, been reduced to £2,400; but he had incurred an additional debt of £1,200 by publishing the *Encyclopædia of Trees and Shrubs*, his edition of *Repton*, and other works, on his own account, though all his creditors agreed to the same terms, viz: to wait for their money until they were paid by the sale of the works themselves, on condition of Messrs. Longman holding the stock of books in trust, and not paying any of the proceeds of the works to Mr. Loudon till the demands of his creditors were fully satisfied. Unfortunately, however, one of the creditors, the engraver, became a bankrupt, and his assignees began to harass Mr. Loudon for the debt due them, which was about £1,500, threatening to make him a bankrupt, to arrest him for the sum, &c. I believe they could not have carried their threats into execution without the consent of the other creditors, and who behaved most kindly and honorably throughout. But the agitation attendant on the numerous letters and consultations respecting this affair, proved fatal to my poor husband.

On Wednesday, the 13th of December, 1843, he sent me into London to see the assignees, and to endeavor to bring them to terms, our kind and excellent friend, the late Mr. Joseph Strutt, having promised to lend us money for that purpose. The assignees, however, refused to accept the terms we offered, unless Mr. Loudon would also give up to them his edition of *Repton*, which he was most unwilling to do, as the debt on that work was comparatively small; and, consequently, he had reason to hope that the income produced by it would be soonest available for the support of his family. He was accordingly very much agitated when I told him the result of my mission, but he did not on that account relax in his exertions; on the contrary, he continued dictating *Self-Instruction* till twelve o'clock at night. When he went to bed he could not sleep, and the next morning he rose before it was light. He then told me he had determined to sacrifice his edition of *Repton*, in order to have his affairs settled before he died, adding, "but it will break my heart to do so." He repeated, however, that he would make the sacrifice, but he seemed reluctant to send me into town to give his consent; and most fortunate was it, as, if I had gone that morning, I should not have been with him when he died. He now appeared very ill, and told me he thought he should never live to finish *Self-Instruction;* but that he would ask his friend, Dr. Jamieson, to whom he had previously spoken on the subject, to finish the work for him. Soon after this he became very restless, and walked several times from the drawing-room to his bedroom and back again. I feel that I cannot continue these melancholy details: it is sufficient to say, that though his body became weaker every moment, his mind retained all its vigor to the last, and that he died standing on his feet. Fortunately, I perceived a change taking place in his countenance, and I had just time to clasp my arms round him, to save him from falling, when his head sank upon my shoulder, and he was no more.

I do not attempt to give any description of the talents or character of my late husband as an author; his works are before the world, and by them he will be judged; but I trust I may be excused for adding, that, in his private capacity, he was equally estimable as a husband and a father, and as a master and a friend. He was also a most dutiful son and most affectionate brother.

It was on the anniversary of the death of Washington (the 14th of December) that Mr. Loudon died, and he was buried, on the 21st of December, in the cemetery at Kensall Green. When the coffin was lowered into the grave, a stranger stepped forward from the crowd and threw in a few strips of ivy. This person, I was afterwards informed, was an artificial flower maker, who felt grateful to Mr. Loudon for having given him, though a stranger, tickets for admission to the Horticultural Gardens, and who, never having been able to thank Mr. Loudon in person, took this means of paying a tribute to his memory.

DWARF PEARS.

BY SAMUEL B. PARSONS, FLUSHING, LONG ISLAND, N. Y.

If experiments are successful, they give great pleasure; if they fail, the mind rarely likes to dwell upon them. Such have been my experiments with dwarf pears.

In 1848, I planted an orchard of somewhat over four acres, containing about four hundred and fifty standard and one thousand four hundred dwarf pears. The ground was highly manured and thoroughly cultivated each year.

For several years, the trees grew most rapidly. The varieties of the dwarf were those which do well upon the Quince, Vicar of Winkfield, Glout Morceau,

Louise Bonne, and Lawrence. The Vicar of Winkfield, occupying about one-third of the orchard, outstripped all the others. The culmination of this variety was in 1852. Familiar as I have been, from childhood, with vegetation in its most beautiful forms, I think I never saw anything surpassing the beauty of these Vicar of Winkfield Pear-trees at that time. The rows were perfectly straight, the trees were making rapid growth, and the fruit hung all over them almost as thickly as the leaves, bending down each branch to that graceful curve which artists think the true line of beauty. Several pear connoisseurs came from a distance to see them, and thought the sight amply repaid them for a long journey. I shall not soon forget the pleasure my orchard gave me that whole summer, from the first budding-out of the young and delicate leaflet and the overlying mass of snow-white bloom to the well developed fruit, gradually increasing in size, and daily assuming a more brilliant color, till every branch was pendent in ruddy gracefulness. I well recollect that the beauty of this orchard was sufficient to attract me in the hottest noon. But at no time was it so beautiful as in the early morning, when leaf and fruit were all covered with dew-drops, and the sun rose upon them, making them glisten and sparkle like diamonds mounted on emerald.

All this afforded pleasure, but I knew this was not enough. The vital question was—would they pay? So I waited till October came, and then gathered them. The yield was enormous, equalling all my anticipations. I sold them to a dealer at prices sufficiently high—if I recollect right, some five dollars per bushel. I have not now any memorandum of the whole yield of the orchard, but it was sufficient to demonstrate to me an important problem—given land, manure, and dwarf pear-trees, the result would be a large income. With this conviction, I wrote an article giving my experience, and highly laudatory of dwarf pears, which article, I now much regret, was extensively copied in magazines and books on fruit.

And I had abundant data to warrant me in arriving at this conclusion. I had tested the matter by actual experiment, had grown the trees and fruit, and received the money. So I bought another farm, and commenced preparing it for pear-trees. This required two years, but, before the two years had elapsed, my opinion of dwarf pears had undergone a material change. I continued to give my pears the same cultivation I had before given them, growing between them all my kitchen vegetables and beets for stock. The year after the great yield mentioned above, I noticed that the dwarfs were less thrifty, while the standards in the same orchard grew as before. The next year, I noticed that they were losing ground still more, and, the third year, they looked and promised so poorly, that, with a few exceptions, I sold the whole orchard to a person who offered a large sum for them. He removed them to Pennsylvania, and I do not doubt that they grew well after being placed in new ground. The standard pears are still growing as satisfactorily as I could wish, and I feel assured that pear culture, with standards, can be made very profitable.

My opinion, therefore, of dwarf pears, founded upon actual experiment and careful culture, is simply this: that they are very nice toys, and, like a beautiful picture, may give great pleasure. They are admirably fitted for a small garden where they can be nursed, spaded, trowelled, and fed with special manures. No one should be without them, if it were only for the pleasure they give. I have no hope whatever that they will be found profitable in orchards for growing fruit on a large scale for the demands of our large cities.

We may ask why the same treatment that produces certain results in a small garden, could not be applied in a large orchard of a hundred acres? There is no reason why it *could* not be; but it may be safely assumed that it *would* not be.

Old Priam was less careful in the training of his children than the father of an only child. The owner of a flock will never care for them as a child cares for its pet lamb. As human nature is constituted, so it will always be; to grow fruit for the supply of such a country and population as ours, we must have stocks and varieties that will do well *under ordinary good treatment.*

Amateurs will always have others of fine flavor, perhaps, to make up for their more delicate organization; but those who grow for market, will desire trees from which they may, with reasonable care, expect a good crop. These will have much reason to complain, if those who sell and those who know, allow them to invest their capital in that which may not yield them any profit.

It is, therefore, that having, in former times, in the full flush of successful experiment, and in all good faith, written in praise of dwarf pears, I feel bound, in all fairness, to give also my subsequent experience, that no one may be misled by any statement of mine. However my opinions may conflict with those of others, they will not doubt my sincerity when they recollect that this expression of them is opposed to my pecuniary interests.

[It was due to the many readers of Mr. Parson's article in the *Horticulturist*, some years ago (in which he strongly approved of the dwarf pear as an orchard-tree), that he should tell his subsequent experience, for which many have been looking. We continue to receive communications referring to the very article the above contradicts. The whole question is now left to the only true argument we can anticipate can be brought to bear on the subject. Let the pears which were promised be seen in the markets, and all will be convinced. We *hope* still for the good time to come, and whether it be a supply from the millions of dwarfs or standards that have been planted, the "dear public" will care but little, if they only have the fruit. Meantime, let all who have any kind of fruit-trees, hurry the fruit into the Philadelphia market, where not one in a thousand has yet *tasted* a good pear; they occasionally see a good one, in Newton's window, at from fifty cents to one dollar, but they want *a bushel* for those prices.—Ed.]

GARDEN VEGETABLES, NO. 3.—THE PEA.

BY WILLIAM CHORLTON.

A dish of well cooked Green Peas is always acceptable on the dinner-table, and no garden is perfect, if a portion be not occupied, in the proper season, with this universally esteemed favorite.

The Pea is indigenous to the South of Europe, and all the usually cultivated sorts are varieties of an annual plant named, by botanists, *Pisum sativum.* During the last twenty-five years, there has been much attention paid to the improvement of sorts, which has resulted in far better quality than formerly.

To have a regular succession of crops is a desideratum, and, to secure this, many persons think it necessary to employ many sorts. This, however, is an error; for with a judicious selection of some three of the best, and attention to sowing, an uninterrupted supply may be had so long as the weather is favorable to their development, for, notwithstanding its southern origin, our hot and dry summers, except in favored localities, act so powerfully upon the cellular texture, as to prevent healthy action, and cause it to be next to worthless. Generally speaking, we are satisfied with what out-door culture can accomplish, in which case, it is only reasonable that there should be no delinquency; but fresh peas *may* be had most of the year, when expense and convenience are not wanting. The most suitable soil is newly turned up, but well worked and friable pasture land, mode-

rately fertile. Fresh or rank manure causes too luxuriant a growth, with paucity of fruit, and never ought to be used, more particularly in soil which has had any previously liberal dressings. In such places, choose the poorest quarters, or those in which the dung has become thoroughly incorporated. Before sowing, the land ought always to be loosened some nine inches deep, with the spade, plough, or fork. The seed may be evenly scattered along the bottom of drills two inches deep, and made level there. This operation is best performed by the spade, used almost in a horizontal position by the workman, as he travels along the side, but not in, the hollow. The requisite distance apart of these drills depends upon the height of the variety; for instance, those which usually grow five feet high, will only have light and air enough at five feet from row to row, while the dwarf, or sorts of two feet, will do with half the space. There is also a difference of seed required, as some kinds are of more spreading habit than others. When these peculiarities are already known to the sower, he can limit accordingly, but something like rule is necessary to the novice, and surety will be gained by using one pint of seed to a drill seventy feet long. Allowing that every day, successively, something like a peck and a half were wanted, this would take from eight to nine quarts of seed; and as information is best conveyed by recording one's own best success, in my own practice it is an object to have peas as early as possible, with daily pullings, kept up until the heat and drought render further sowings abortive.

So soon as the ground is in good working order, a warm spot on the southern side of a fence is well and deeply loosened up with the spade; the drills are opened and sowed, as above described, with one quart of *Extra Early* (Sangster's Early No. 1 was tried last year, and proved the best early pea I have seen), one quart of *Early Warwick* or *Early Frame* (*alias* Prince Albert), and, at the same time, on the piece for general successions, one quart of *Champion of England.* These three kinds, all sown at the same time, give a supply which comes in immediately after each other, from their individual difference of precocity or lateness. Previous to this, about the middle of February, one quart of the earlier sort is sown in shallow boxes, and placed in a cold frame or late grapery, kept from frost. In the latter part of March, or beginning of April, trenches are made the same as for sowing, but deeper, in the warmest spot at liberty; the boxes are conveyed thither containing the young plants which are then four inches high, the loosely tacked side of each is drawn off, and the whole contents are slid carefully in the trench; the next box to the end of the former one, and so on until all are done. The sides are afterwards filled in, and the soil left as a ridge on the north side, which assists in protecting from cold winds. The boxes are left also alongside the rows for a time, and, if there be danger of frost or severe weather, they are inverted over the tops of the plants. By this little extra trouble, I generally gain some ten days over those sowed as described in the open ground. So far, we have four successions by two sowings, and the using of three sorts, the Champion being the latest. To keep up after supply, one quart of the latter kind is sown each two weeks until the middle of June; after this, the weather prevents, in my situation, any further success. The object in using only one variety for all after-sowings, is the certainty of regular supply, which cannot be so well secured by many kinds, as they do not come in with the same exactness; and the reason for choosing the Champion of England exclusively, is on account of its excellent flavor and good bearing qualities. It is a tall growing Pea, however, of five to six feet, and should be sown in rows six feet apart. This distance is suitable for celery, and, consequently, this latter may be put in for a fall crop, thus more economically occupying the ground.

So far, we have got a supply that will be fit for use from the middle of May to

the middle of August, when, unless in unusually cool situations, there will be a blank. Sowings may be made the whole season, but, in any case, we may commence again about the latter mentioned period; and here it is best to put in one of the earlier sorts, because there may probably be some frosty nights before the later kinds would be filled in the pod. This sowing will be ready—say the latter part of September, or early in October, and continue on for some time; and if it be desirable to have Peas until New Year, an after-sowing may be made in box-frames having glass sashes. In this case, the dwarf sorts alone are admissible, and *Bishop's Dwarf*, or *Queen of Dwarfs* are two of the best, the rows being eighteen inches asunder. The glasses ought not to be put on until frosty nights are to be expected, and then air should be freely given on all favorable opportunities, the intention being not to force, but to protect.

As above, the possibility is, Peas may be had most of the year, viz: from May to January, with a brief deficiency of about six weeks; it is, however, necessary to have a low house or glazed pit, with the convenience of artificial heat. This will only be needed in severe weather, and just enough heat, but not more, kept up to give a temperature of 45° in the night, with a rise to 60° in the day. The sowings and kinds will be the same as for frames; air will be required freely, but frost guarded against; it is here absolutely necessary to pinch out the tops of the vines when in full blossom, in order to assist the pods to fill. In this particular instance, it will always be found of benefit not only under glass, but in out-door culture, if time be allowed, and patience will undertake to do it. There is often much waste made in gathering the pods; a great deal of difference, also, between the good or bad quality depends upon this operation. Green Peas are always best when fairly swollen, but not so far so as to be approaching maturity. On the other hand, if pulled too young, the flavor is deficient, and the husks predominate. A little observation only is required. A trifling care in this respect, will often make a crop do double the service.

How to Boil Peas.—Put them in boiling water in which one teaspoonful of common salt and one-fourth of a teaspoonful of carbonate of soda has been dissolved in each three quarts. Simmer very slowly twenty minutes, drain the water off through a hair-sieve, and add pepper and butter to taste.

It is presumed that the above-mentioned kinds will not satisfy all persons, notwithstanding a surety and good quality will be gained thereby. To make our essay more complete, a list of the best sorts is appended below:—

Woodford's Green Marrow.—A good bearer, of fine quality; very green; grows three to four feet; a late sort.

Knight's Dwarf Marrow.—A fine sort; good bearer; flavor sweet; grows three to four feet; second early.

Hair's Dwarf Mammoth.—A large late Pea, of good flavor.

Fairbeard's Surprise.—Very good; flavor sweet; grows five feet, and continues bearing a long time; second early.

Blue Scimitar.—One of the best; continues bearing longer than the last mentioned; grows five feet; second early.

Flack's Victory.—Large, productive, and sweet; a late sort; grows three feet.

Warner's Early Emperor.—A good early Pea; very productive; grows four to five feet.

More might be noticed, but the above contains all that is necessary for all purposes, and they are of the very best.

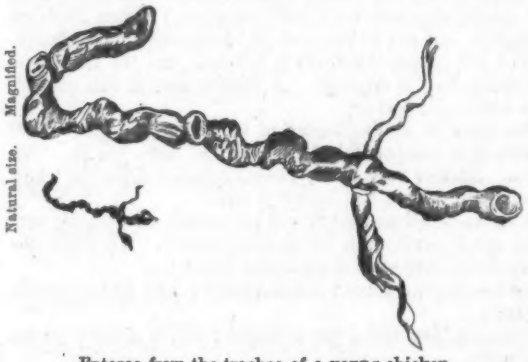
THE GAPES IN FOWLS.

J. J. Smith, Esq.—Dear Sir: Believing it a duty to make public anything that may be advantageous to others, I submit the following infallible remedy for the gapes or gaps in young chickens. It is well known that a species of entozoa, called the red-worm, infests the trachea of fowls, obstructing the air-passage, or windpipe—the cause of this distressing malady.

In answer to a letter, in which I briefly stated my experience, Prof. S. S. Haldiman informed me that D. J. Brown describes the worm, and gives various remedies in his *American Poultry-Yard* (p. 264) [this I have not seen], adding that my method was new to him; it may be so to others—I have, at least, never seen it published.

Take a hair from a horse's tail; double it once or twice, if need be, to stiffen it; twist the doubled hair between your thumb and finger, so as to leave but a small loop at the other end (——————○). Now seize the tip of the tongue of the afflicted fowl, and extend it out and downwards, which will enable you to introduce the doubled horse-hair as far down the windpipe as necessary; let the hair untwist, or assist a rotary motion with your thumb and finger, which will entangle the slimy worm, and it will be found on the hair on withdrawing it.

Sometimes two or more are brought away at one operation, much to the relief of the sufferer, and, when skilfully performed, effects a perfect cure, to which I can testify. The following drawing represents this parasite considerably enlarged. The head is cup-shaped, open, the larger being the female; the male is smaller, and soldered on, centrally, at some distance behind the head of the female, the body of which is contorted, and watered by thread-like bodies, of various shades of colors, curiously plaited and twisted within, and distinctly visible through the transparent cuticle. Those may prove to consist of species of entophyta, or vegetable parasites, found within the animal parasite, many of which are beautifully illustrated, and the accounts published, by the Smithsonian Institute, the discovery and research of your fellow-citizen, Joseph Leidy, M. D.



Entozoa from the trachea of a young chicken.

Very respectfully yours, Jacob Stauffer.

Mount Joy, Pa.

THE BUCKWHEAT-TREE.

Cliftonia mylocorium.

This curious production has excited very little attention among us. It is a native; and, no doubt, partially hardy, if not entirely so, in this latitude. By

turning to the second volume of Nuttall's *Supplement to Michaux's Sylva*, the followng curious account is found, together with a figure of the tree in blossom :—

"This elegant tree, which enlivens the borders of the pine-barren swamps of the South, is met with nowhere north of the Savannah River, on the line of Georgia and South Carolina. From hence, it is occasionally seen in all the lower and maritime region of Georgia, as well as the lower part of Alabama and West Florida. It attains the height of eight to fifteen or more feet, being much branched, and spreading out at the head like an apple-tree. The verticillate branches are regularly covered with a smooth, gray bark. The wood is compact and whitish. It is exceedingly ornamental in flower, which takes place in early spring (March), when the whole surface of the tree is covered with the most delicate, elegant, and somewhat fragrant flowers. * * When the flowers are past, the tree puts on a still more curious appearance, being loaded with triangular-winged capsules, resembling buckwheat, and hence its common name. The leaves resemble those of privet, are evergreen, thick, very smooth, not perceptibly veined, and glaucous beneath."

Mr. Bartram discovered this tree, and very clearly describes it as "a new shrub of great beauty and singularity. It grows erect seven or eight feet high. A multitude of stems arise from its root; these divide themselves into ascending branches, which are garnished with abundance of narrow, lanceolate, obtuse-pointed leaves, of a light green, smooth and shining. These branches, with their many divisions, terminate in simple racemes of pale, incarnate flowers, which make a fine appearance among the leaves. The flowers are succeeded by desiccated, triquetrous pericarpi, each containing a single kernel." (Bartram's *Travels*, p. 31.) How so fine a plant came to be overlooked for near half a century, and to be still unintroduced among us, is really surprising. "In the Northern States, and in Britain," Nuttall says, "it is a hardy greenhouse plant, and well worth cultivating. But, to see it in perfection, you must behold it in its native swamps, attaining the magnitude of a tree, and blooming profusely on the verge of winter, without anything near it as a contrast, save a withered carpet of leaves and leafless plants, and in the midst of a gloom and solitude that scarcely anything else at the same time relieves."

He adds: "In Bartram's Botanic Garden, Philadelphia, it appeared to be quite hardy, and survived for many years without protection."

If any of our friends have this tree, they will confer a favor by informing us, and if any correspondents at the South can supply us with a few seeds the coming season, they will especially oblige us.—EDITOR *Horticulturist*.

VEGETABLE PHYSIOLOGY—THEORY OF NUTRITION AND GROWTH.

BY YARDLEY TAYLOR, LOUDON COUNTY, VA.

WHEN philosophers began to make observations on the operations of nature, and to form theories respecting its laws, they did so by observing but a few of the facts bearing upon the subject. Thus their theories were often very imperfect at first, and founded more upon fancy than fact. But as facts began to be more and more observed, and finally acknowledged as the only true base of theory, most of these, being fanciful, have been so modified, as to conform nearer to what appears to be the true laws of nature. Witness the ancient theories of the motions of the earth and the planets, &c., of the circulation of the blood, and the process of nutrition and growth of animals, as well as the process of nutrition and growth

of vegetables. Philosophers have given so much attention and research to the motion of the heavenly bodies, and made themselves so well acquainted with the laws governing the same, as to be able to predict the time and place of the appearance of a hitherto undiscovered planet. The theory of the circulation of the blood, and of nutrition, is believed to correspond very nearly to the laws of its government, and will account for the varied phenomena we witness. The science of vegetable physiology, being of later origin, may be said to have not yet reached that degree of perfection of which it is capable, nor so fully to correspond to the facts bearing upon it.

When philosophy began to turn its attention to the circulation of the sap, and the growth of vegetable matter, and to form a theory of its laws, the circulation of the blood in the animal economy, and its laws of nutrition, were supposed to present a parallel case so nearly allied, as to be taken as the type of the law in that case. The fact of the circulation of the sap from the roots to the leaves, and the proof that carbonic acid gas was imbibed by them, while water and oxygen gas was given off, seemed to point strongly to the conclusion that the leaves acted to the vegetable in a similar manner to what the lungs did in the animal. It was believed that the carbonic acid and other substances were taken up by the roots in a fluid or gaseous state with the sap, and then carried by it to the leaves, where, being exposed to sunlight in their broad surfaces, a decomposition or change took place, making these materials organizable, or ready to be assimilated by the plant. This newly prepared matter was now supposed to descend between the bark and the wood, and to be deposited as growth, thus carrying out the parallel between the animal and vegetable economy. This parallel is beginning to be seen not to exist to the extent it was once thought. Professor Gray, in his *Botanical Text-Book*, says "there is no circulation in plants similar to that in animals."

In the last number of the last volume of the *Horticulturist* (page 555), is an article on the "True Theory of Grafts." In this article, Dr. Lindley's "own words" are directly applicable to the case. "It is, however, now certain," he says, "that although wood is formed by a descending process, yet that its descent is not in an organized state. Fluid matter—out of which it is produced—passes indeed from above downwards, but the formation itself is wholly local and superficial, and, consequently, there is no such thing as an incasement of the lower part of a tree by wood descending from above." This "important fact," as he terms it, receives "a new demonstration" from the experiment of "Dr. Maclean," who, in grafting a white beet on a red beet, "and *vice versa*," showed that there was no "blending of the two colors," but that the growth of the white part made white growth, and of the red part made red growth, whether the root from which it received its sap was red or white. Thus proving, that of each part "its own cells produced its own coloring matter as they formed superficially." "This is entirely consistent," says the writer of the article alluded to, "with all that has been discovered by the modern physiologists who have applied themselves to a study of the natue of the individual cells of which plants consist."

Admitting these positions to be true, and "that each cell has its own inherent power of secretion," and that "fluid matter out of which wood is produced," is "not in an organized state" in its supposed downward descent, it may be asked, where is the necessity for such "descending process" at all? What advantage is gained by the "fluid matter" being carried to the leaves, as is supposed, if, in its descent, it is not organized, but that "each cell has its own inherent power of secretion," and "perseveringly retains that which is natural to it?" Indeed, there are strong reasons for believing that there is no such downward process at all. Where is its evidence? where is the necessity for its existence? It has been

supposed that light acts by decomposing the carbonic acid gas in the sap as it is carried through the leaves, and thus enables the plant to appropriate the carbon in building up its own structure. But is there any evidence in chemistry that sunlight can decompose carbonic acid, or release oxygen from its compounds in any case. Until this is shown, it would seem to be hardly proper to attribute to it an effect without some proof of its power to produce such an effect. That such an effect is produced, is no evidence that that was the agent in producing it; more particularly, as there is an agent in nature that is known to produce such an effect, and one within reach of every plant.

That agent is electricity, the power of which is perhaps not yet fully ascertained, but enough is already known to consider it fully capable of performing all that may be required of it in the growth of plants. The beautiful art of gilding by galvanism is proof of this. In this case, the metal is dissolved in acid, the oxygen here dissolving the metal, making it fluid and colorless. Now, if the object to be gilded is connected with the pole of a battery, and galvanism applied, the one pole will attract the oxygen, and the metal in solution will be drawn to the other pole, and will be distributed over the surface to be gilded. Now, as carbonic acid gas is a union of carbon and oxygen (and it is from this that vegetable physiologists generally consider wood is derived in its growth), and as carbon is positive and oxygen is negative, it is fair to presume that the application of electricity in such case would release the oxygen and retain the carbon, and unite it to the already formed wood of the plant. That carbonic acid gas is carried up by the sap as well as imbibed by the leaves, is now generally admitted, and as this gas is readily imbibed by water, and will unite with it in large proportion, we have the exact condition necessary to effect the object desired, on the application of electricity, without resorting to any supposed hypothesis.

That electricity is present, in sufficient quantities, during the growing season, we have reason to believe from experiments already made. In a work published in New York, and styled "The Farmer's Guide to Scientific and Practical Agriculture," by Henry Stevens, of Edinburgh, and J. P. Norton, of Yale College, is an article on "Electro-Culture." In this article, the author quotes the language of William Sturgeon, of Manchester, who has bestowed much attention to the subject of electricity in all its bearings, and who asserts that "this active element of nature is so universally diffused through every part of the terrestrial creation, that it becomes an occupant of every part of the earth's surface, and of the shell of air that surrounds it; that trees, shrubs, plants, flowers, and crops of every kind, partake of this electric distribution;" and then goes on to show that "each individual object is requisitely susceptible of disturbance when the circumstances vary," when they become "positive" and "negative" to each other. This condition, "the various objects which constitute the vegetable clothing of the land are now in precisely the same condition, being positive and negative with regard to each other. A similar inequality of electric force occurs among growing plants and their manures, and even amongst the various elements which constitute the latter, no two of them being precisely alike at the same time." And after describing the manner of electric action, the writer concludes: "From this train of reasoning, we are led to some of the most interesting points in vegetable physiology. The electro-polar condition of plants qualifies them in an eminent degree for the performance of those operations which develop electro-chemical phenomena; and, what is very remarkable, the laws of this beautiful branch of electricity are rigidly enforced, and admirably complied with, in the decomposition of carbonic acid gas by their foliaceous parts; for, in this process, the electro-positive carbon is drawn to the electro-negative poles of the plants in precisely

the same manner as any electro-negative pole, artificially made, would release the carbon from the oxygen, and select it in preference."

Here, then, we have a theory of nutrition and growth of vegetable matter, in connection with the living principle, that will account for all we see of growth, without having recourse to the doubtful theory of the downward flow of sap, and the decomposing power of sunlight. Admit that the sap carries up with it, from the roots, matter suitable for growth, and that with the carbonic acid gas imbibed by the leaves, and distributed through the sap (as it no doubt is), then, by the agency of electricity passing through the sap, and decomposing the gas, the carbon is precisely in the place where needed for growth, and its conditions, as far as we know them, are as completely fulfilled in that case as they can be supposed to be in the other. It will set aside the necessity of a supposed downward flow of sap, which has been often asserted, but never proved. It will further release the theory of the absurdity of supposing two sets of vessels, one for the upward, and the other for the downward flow of sap, when no such distinction can be perceived, and when there is no power that we know of can produce such an effect. Physiologists will doubtless see cause to advance this further step in theory, and no longer assign to nature's laws a round-about way of producing a result, when all we see in her laws are remarkable for simplicity.

FRUIT GROWERS' SOCIETY OF WESTERN NEW YORK.

The annual meeting of this Society was held at the Court House, in Rochester.

The following gentlemen were unanimously elected officers for the ensuing year:—

President—John J. Thomas, Union Springs.

Vice-Presidents—Asa Rowe, Sweden; H. P. Norton, Brockport; E. C. Frost, Catharine.

Secretaries—J. B. Eaton, Buffalo; H. E. Hooker, Rochester.

Treasurer—W. P. Townsend, Lockport.

A committee having been appointed to propose subjects for discussion, made a report of the following questions, which were discussed in the order reported:—

Small Fruits.—Several members of the Convention thought the Currant might be grown extensively, both for sale and for making wine.

Mr. Barry being called upon to state some of the best varieties, recommended the *Cherry Currant*, the *White Grape*, and the *Victoria*—the two latter excellent bearers; the *Cherry Currant*, not quite so good, though very fair, and the *Victoria*, valuable on account of its lateness.

Mr. Warren, of Genesee Co., found the *Cherry Currant* very productive, more so than any other variety.

Dr. Long found the *Black Currant* to make the best wine, as good as *Port Wine*, and very much resembling it, and exceedingly valuable for medicinal purposes. The doctor strongly recommended the growth and use of the *Black Currant*.

The *Raspberry* was recommended by Mr. Burtis, and others, as worthy of extensive cultivation.

Mr. H. E. Hooker said the fruit growers in the neighborhood of Cincinnati, had cultivated the *Black Raspberry* for market. It would bear shipment without injury. The *Antwerps*, and other varieties, would spoil in twelve hours after picking.

Col. Hodge, of Buffalo, had found the common *Black Raspberry*, or *Black Cap*, as it is generally called, the most hardy, and, take it altogether, the best for general cultivation. The *Antwerps* were tender unless grown among trees, which would afford sufficient protection. Covering the plants in the fall was troublesome and expensive. The *Allen* is a variety much grown around Buffalo, and is a native of Ohio. It is of a reddish black, and a superior fruit.

Mr. Barry said the growing of the *Antwerps*, and other good varieties, is profitable near large cities. The *Red Antwerp* is the variety grown so extensively on the Hudson River for the New York market. His practice was, in the fall, to bend the tops down, and throw a spadeful of earth over them. The snow soon covers them. The Antwerps are far superior, in flavor, to the native varieties mentioned—so is the Orange, and other varieties that might be named—they are the Raspberry in perfection. The Red Antwerp is hardy in the gardens about this city, requiring no protection.

Mr. Hooker observed that the Black Raspberry would usually sell higher than other varieties, being much sought after for preserving. The foreign varieties ripened very fast, and in a few hours were over-ripe, so that they required to be watched, or a portion of the crop was destroyed. This was not so with the Black. It would keep in good condition several days.

Mr. Stone, of Oswego, thought it worthy of notice that the Black Raspberry was not attacked by worms when ripe, like other varieties.

Mr. Barry considered this a bad sign, as insects were good judges of fruit.

If the people want the Black Raspberry, and are willing to pay more for them than for a better sort, so as to make their growth more profitable, of course fruit growers would do well to raise them. But, when all the pains necessary to grow better kinds is a slight protection in winter, in exposed localities, no one should allow the trouble to frighten them from their culture. This would be *progress* in the wrong direction. The *Black* Raspberry is too woody for our fancy. If we were obliged to eat a certain amount of wood, we should prefer to have it separate from the fruit.

Gooseberries.—Mr. Hooker thought Gooseberries a very profitable crop for market, if they could be grown free from mildew. Had raised some for market, which he sold at eighteen cents per quart.

Mr. George Ellwanger had found that the *Crown Bob*, *White Smith*, and other strong growing varieties, were not apt to mildew.

Mr. Hooker; on light soils, never got a good berry, even with thorough mulching. Had no trouble in growing Gooseberries free from mildew on a heavy soil. Houghton's Seedling had never mildewed with him.

Mr. Ellwanger had never known Houghton's Seedling to mildew, even on the lightest soil.

Mr. Hodge cultivated twenty varieties. Found that, after two or three years, the mildew entirely destroyed them. Does better in a heavy soil, but even then mildews. Heavy pruning and a stiff soil, are the best preventives. Never recollected seeing mildew on Houghton's Seedling.

Mr. Barry said the Gooseberry required a cool, moist soil. In Lower Canada, Maine, and in the northern part of this State, it succeeded almost as well as in the cool, moist climate of England.

Mr. Warren, of Genesee Co., had raised the Gooseberry, without trouble from mildew, in a light soil, on the north side of a board fence.

SHELTER.—Benjamin Hodge thought this subject very important. Shelter was essential to the growth of fruit in many localities. Peaches could not be raised at Buffalo—not on account of severe frosts, as many thought, but because of the

cold, bleak winds. At the lower end of Grand Island, is a tract of land called Peach Haven, it is protected from the west winds by a natural forest. There the Peach succeeds well. Would advise the planting of the *Norway Spruce;* it grows quick, and will afford good shelter.

Mr. Hooker said many fruit growers thought the principal injury to the Peach, was from the cold northeasterly winds in the spring, just after blossoming.

Mr. Burtis, of Rochester, would prefer the coldest, bleakest hill for a peach orchard, so that the ground would freeze deep, and thus keep the trees back in the spring.

Mr. Fish, of Rochester, had found, by experience, that when the Peach crop failed, it was, in almost every case, in consequence of extreme cold in winter.

Dr. Roach, of Ontario Co., has two peach orchards, of about two hundred trees each. One is exposed to the west wind, and the other pretty well sheltered. From the exposed orchard he gathered about a peck of peaches, last season, and, from the other, one hundred and fifty baskets.

Mr. Barry had no doubt but exposure to the west winds was very injurious. The winter before last, the west sides of hemlock-trees, standing in the natural forest, were injured by the cold of the winter, as were the west sides of privet hedges, and other hardy plants, plainly showing the evil effects of continued cold blasts from the west. Pear plantations that were exposed, bore but little. Mr. Barry agreed with Mr. Hodge, that the Norway Spruce should be recommended as a suitable tree to plant for sheltering orchards. For small gardens, the *Arbor Vitæ* would be suitable.

Mr. Langworthy had cultivated the Peach for twenty-five years, somewhat as a profession. He found that both the east and west winds destroyed a good deal of fruit. As a general rule, the rows of trees on the east and west ends of the orchards bear but little, while those in the other parts of the orchard bear well.

Of the value of *shelter* for the orchard, there can be but one opinion. Those who have travelled over the Western prairies, and noticed the effects of the tremendous winds that prevail there on fruit-trees, must *feel* the importance of shelter. Were we to plant an orchard on the prairies, we would almost surround it with a belt of Norways.

Hardy Grapes.—H. N. Langworthy would like to have gentlemen talk freely about the best method of cultivating the Grape. The finest Grapes, he often observed, were those that were grown on part of vines that had run up among the branches of some neighboring apple, or other tree, where they seemed to fully ripen in the shade. From this, he argued that the sun was not necessary to ripen the Grape—it seemed to require warm air.

Mr. Hodge hardly thought the Isabella Grape would ripen well in the neighborhood of Rochester, in ordinary seasons.

Mr. Barry thought, with proper culture, the Isabella Grape could be ripened in Rochester almost every season. He referred to the beautiful, well-ripened Isabellas raised by Mr. McKay, of Naples, Ontario Co., and called upon Mr. Johnson, who resided in the neighborhood of Mr. McKay, to give the meeting some information as to his mode of culture, profits, &c.

Mr. Johnson had been somewhat interested with Mr. McKay in the culture of the Grape. He pruned very close every season, and trained his vines on wire trellises some seven feet high. The lower branches were trained very near the ground. The vines were one rod apart each way, making one hundred and sixty to the acre. He thoroughly manured. The fruit ripened every season perfectly. The soil is gravelly, with a clay subsoil, and a northeastern exposure. The product is about $1,200 per acre. Mostly sold at fifteen cents per pound.

Mr. Flower, of Syracuse, stated that a gentleman near Syracuse had sold $800 worth of Grapes from half an acre.

Mr. Hodge was acquainted with Mr. McKay's Grapes. They are ripe Grapes —a beautiful black. Not one-quarter of the people of Buffalo ever saw a ripe Isabella Grape.

Mr. Ainsworth, of Bloomfield, was acquainted with Mr. McKay's Grapes. He has a favorable situation. He prunes very thoroughly both in the winter and in the summer, and thus the shade is lessened, and the fruit exposed to the light and air. Got a fair crop the third year after planting. At present prices, the cultivator can depend upon from $500 to $800 per acre profit.

Mr. Barry thought that this discussion must have convinced all that the Isabella Grape will ripen here every season; and that the raising of hardy Grapes is not only profitable, but exceedingly so.

Some remarks were made by Messrs. Johnson and Ainsworth in regard to their method of pruning the Grape.

GRAFTING OLD APPLE-TREES.—Mr. Hodge said, if trees were healthy and vigorous, it would be wise to graft; if old and sickly, it would be much better to cut them down, and plant out young trees. Some years since, a gentleman in his neighborhood wished him to send men to graft an old orchard on his place. Mr. H. advised him to cut down his old trees and plant a young orchard. He found some itinerant grafters that did the work. In three years, he was so sick of the operation that he cut the whole down, and planted young trees. If the ground is well prepared by thorough, deep ploughing and manuring, and the trees well cultivated, young trees will bear so early as to astonish those who plant. In 1848, he furnished a gentleman with one hundred apple-trees. From these trees, in the fall of 1854, were picked one hundred and twenty barrels of apples. They were mostly Baldwins and Greenings. Two Baldwin trees bore three barrels each.

Mr. Barber, of Ontario Co., had considerable experience in grafting old orchards. He did not graft in the tops of trees, but cut off large limbs six or ten inches in diameter, or more. Then put in good, strong scions, of some quick growing varieties, all around the limb, as thick as they can set, about an inch apart. This must be done before the sap starts. These scions grow and form a lip all around the limb of the tree, and the more feeble of these scions can be cut away. Trees treated in this way, had produced three barrels the third year. Had grafted Apple-trees in this manner that had been broken off, leaving nothing but a stump, and Pear-trees that had lost the entire head by blight, and never failed to get a good top. If the grafting was done early, a lot of shoots would soon appear, and furnish leaves enough to elaborate the sap.

Mr. Hooker had pursued a similar method with Pear-trees destroyed with blight, and with success. Also, with Apple-trees in a few cases. The wood of the large limb became discolored, and showed signs of decay.

Benjamin Fish thought there was no general rule for grafting old trees. If a tree had been well pruned and well cared for, it could be grafted with success; but as farmers generally treat their trees, pruning them with an axe, they become diseased, and when a large limb of such a tree is grafted, the wood decays, and the tree becomes hollow and worthless.

T. C. Maxwell said there were a number of old Apple-trees near Geneva, planted in the olden time by the Indians. These trees were cut down by Gen. Sullivan. They show signs of this, as many of them have two trunks. These trees were grafted fifteen years since, and are now profitable trees.

Mr. Barry thought Mr. Barber showed some knowledge of vegetable physiology in his remarks. He was opposed, however, to grafting old trees, when in a state

of decline, except in special cases—as when a person takes possession of a farm destitute of good fruit, with a few old Apple-trees growing. In such a case, it would be well to graft, so as to have fruit enough for family use as quick as possible.

Mr. Barry said that the growing of *Winter Pears* was yet a new business. Winter Pears could be grown as easily as Fall Pears—the only difference is the trouble of keeping the Winter Pears until they ripen. Most of the winter varieties will keep and ripen in barrels in the cellar, as easily as Apples. He had been surprised to find how little care and trouble they required. The *Easter Buerré*, *Lawrence*, and *Vicar of Winkfield*, may be grown and ripened here as easily as Baldwin Apples.

At this stage of the meeting, Mr. Barry presented to the Convention a fine dish of *Easter Beurré Pears*, kept in a barrel in the cellar until taken out to bring to the meeting.

Mr. Hodge observed, that in selecting Pears for market culture, it was important not only to get Pears of good quality, but those that bear large crops. As to making Pear culture pay, there could be no question about that. A Pear-tree in Mr. H.'s vicinity, bore forty bushels last season, and another, belonging to his brother, bore twenty bushels, which were sold at $2 per bushel. This was an inferior variety.

Mr. Hooker found Winter Pears quite variable as to quality. Had no trouble in ripening them—the trouble was to grow them good. If well grown, they would ripen well.

Mr. Barry observed that trees of Winter Pears did not bear fine fruit until they attained some age. The *Glout Morceau* did not bear fine fruit, even on the quince, until eight or ten years old. Winter Pears must be well grown. Imperfect, poor specimens will never ripen.

A small, but very fine exhibition of *Winter Fruit*, was made by several members of the Society.—*Rural New Yorker.*

PHARBITIS RUBRO-CŒRULEA.*

Convolvulaceæ, Pentandria Monogynia.

The appearance alone, and the form of the flower, as well as can be produced in a picture, for want of an example from nature, oblige us to append to the *Pharbitis* this Ipomæa of authors. In adopting as a useful and probably natural division, this distinction of the Pharbitis from out of the still very irregular group of the Ipomæas, it seems to us evidently impossible to separate the species in question from the Pharbitis hispida, Choisy (Convolvulus purpureus, L.), prototype of this group of Liseron's Annual, so popular for the decoration of windows, balconies, and green arbors.

Notwithstanding the tropical origin of the Pharbitis, it owes to its annual continuance as well as to its rapid development, the faculty, valuable to us, of vegetating and flowering in the open air in our climate. It is, at least, true of the common species, such as the Pharbitis hispida and P. Nil; as to the less common species here figured from a cultivated specimen, last summer, in the Van Houtte establishment, it appears to be of a more delicate nature.

Pre-eminently distinguished in the genus by its general smoothness, and by the remarkable shortness of the calyx divisions, this species probably varies in color, and does not always present the contrast of blue and violet carmine on the two faces of the corolla. Let us add that, in the pictures of the model plant, the angles are sharply acuminate, instead of being, as in the figure, slightly indented and obtuse. Should not this constitute a specific difference? A question impossible to determine without studying the plant itself.

The *Pharbitis rubro-cærulea* comes from Mexico. It was introduced into England before 1834, by Mr. Samuel Richardson, then in the service of the Anglo-Mexican Society for the working of mines. We have every reason to believe that it is still very rare in the gardens on the continent. J. E. P.

Culture.—The *Pharbitis* rubro-cœrulea should be sown in a warm bed, and under glass, redressed, and put into a warm greenhouse; or, simply sow it, soon after, in a warm greenhouse, in March or April. Its very tender stems require to be trained, twined into juniper branches, or any other small shrub with strong twigs. Later, place these stems within reach of some branched bush, to pass the summer, and the plant will very soon cover and ornament it. It will there display during the whole summer its numerous flowers, which are very large, and of the purest cerulean blue color! Here and there, a flash of carmine will ornament some part of the corolla.—*Flore des Serres.*

HABROTHAMNUS AURANTIACUS.

REGEL.

This belongs to a sub-genus of Cestrum, and it is sometimes called *Cestrum* Aurantiacum. This elegant species flowered first in the garden of Rurich, about 1850; its origin Guatemala; its color suffices to distinguish it from the other species of Habrothamnus, and especially *H. elegans*. It is a valuable addition to our greenhouse shrubs.—*Ibid.*

* See Frontispiece.

EVERGREENS.—WHAT SHALL WE PLANT?

Mr. Buist's Catalogue.

A WELL prepared catalogue of trees, with information such as an experienced nurseryman is capable of giving, if he inclines to embody his acquired knowledge, we always welcome. It is a task to make such an one, and we are disposed to give due credit to the maker when we find his information reliable. Such, in the main, is "A Descriptive Catalogue of Hardy Trees and Shrubs, grown and for sale by Robert Buist, Rosedale Nurseries, Darby Road, near Philadelphia." Since the breaking-up of the old Landreth Nurseries, in this neighborhood, Philadelphia has presented fewer extensive establishments where trees in large quantities could be purchased than would seem to be her proportion; but land has become so dear in our vicinity, that nurserymen have been obliged to remove to some distance, where ground was more reasonable, and they are distributed near to the neighboring towns and villages, such as Westchester, J. L. Darlington & Co.; near Norristown, Montgomery County, Pa., Alan W. Corson; Woodbury, N. J., David J. Griscom; Germantown, Thomas Meehan, William Saunders, John Bright, Messrs. Maupay, Bowman, &c.; Elizabethtown, N. J., Wm. Reid; Marcus Hook, Pa., D. Fulton; near Burlington, N. J., George Deacon; Hightstown, N. J., Isaac Pullen; Falls of Schuylkill, Pa., David Ferguson. Several other establishments are growing up, and promise, ere long, to have a supply that will keep us by no means in the rear, in this respect. Meantime, we shall make Mr. Buist's *Catalogue* the text for a few remarks.

The Evergreens are the first, and Mr. B.'s list is a highly interesting one. The following, from the Introduction, is excellent; the difficulty generally is to induce the planter, or his successor, to cut away a fine tree, to make room for better growth:—

"We must observe that nearly all planters of coniferous Evergreens make the same fatal error in planting the margins of walks, carriage-roads, and drives. Trees are generally small when procured from the nursery, and they are at once planted about three to six feet from the edge of an entrance in place of twenty feet. Where an approach is required to be belted with Pines or Spruce, the ground should be well prepared, at least twenty feet from the edge of the drive; and any quick-growing tree, such as Silver Maple, planted close to the verge, to give shade or shelter. When the Evergreens have attained the height of fifteen or twenty feet, the Maples can be dispensed with, and removed to some boundary, or destroyed. Some may think this a tedious process, but it is the best and most permanent for having an approach to a mansion worthy of a name, and it will be a permanent memento of the planter to all eyes of taste."

Nothing could be better than the above advice. We have seen recently many examples where the newly planted trees have encroached upon walks and drives, after four or five years' planting. It is difficult, we know by experience, to look upon the little trees of three or four feet height as towering monarchs, and this is one of the points which requires the experience of a landscape-gardener, or of a man of some forethought.

Commencing on page 1, it may prove a useful service to many about to plant, if we insert Mr. Buist's remarks on the several species of Evergreens which he has for sale:—

"Trees and Shrubs can be removed from October to April, whilst the ground is open. The

roots of trees should never be exposed to the air after arrival. They should be watered and placed in the earth at once till properly planted.

"*Abies*, the Spruce Fir. All the species are ornamental, and many are useful as timber-trees. They grow in dry, elevated, rich soils, though some will do well in rich, moist valleys, in the vicinity of water, or in the midst of rocks. Their diversity of growth is excessive. We have had *Pygmea* twenty years, and it does not exceed three feet, whilst we have had *Excelsa* to grow as much in one year.

"*Araucaria*, a genus of remarkable trees, natives of the Southern Hemisphere, all of majestic growth, attaining the height of over 100 feet. We fear that none of them will be generally hardy here, but, in Southern latitudes, they grow freely in sandy, rich soil, with a dry bottom.

"*Berberis*, Berberry. Some of the species of this genus have been raised to a new genus, *Mahonia*, by botanists. We adhere to the original name for all. They are pretty dwarf shrubs, with shining foliage of various forms, and all pleasing. All have yellow flowers.

"*Buxus*, Box-Tree, principally natives of the East, where they are much used in formal gardening, as they may be trimmed into every imaginable shape. They like rich, deep, loamy soil, and succeed well in shady situations.

"*Cedrus*. To this family belongs the celebrated tree of Mount Lebanon. They all delight in rich, sandy soil, with a dry bottom; being natives of mountains, they are impatient of their roots being saturated at any period of the year. They are all trees of a gigantic habit, with a grandeur that excites universal admiration; growth from 60 to 140 feet.

"*Cephalotaxus*, Japan Yew-Tree. This valuable addition to our evergreen Conifers is one of the discoveries of R. Fortune, in his enterprising travels in Japan and China. The species which bears his name, the only individual yet known to us, is a shrub of pleasing habit, and likely to become popular when a little more common; at present, the supply is rather limited to make it available to the general purchaser. *Fortunii*, Fortune's yew.

"*Cerasus*, the Laurel Bird Cherry. An indispensable family to the landscape, or the most humble gardener who has any pretensions to taste. It is the universal favorite of all Europe; but, strange to say, the species are not perfectly hardy here, though south of Baltimore they grow luxuriantly. They are all shrubs of from four to fifteen feet high.

"*Cotoneaster*, dwarf shrubs of procumbent habit, much used in covering rockwork or low walls; small foliage; white flowers, succeeded by scarlet berries, that are as brilliant as garnets during winter.

"*Cryptomeria*, Japan Cedar, a new tree of very distinct habit, from the mountains of Japan; it delights in moist, rich soils; of pyramidal form, with drooping branchlets; perfectly hardy, and grows rapidly, two to four feet in a season: if planted in a poor soil, the foliage has a brown, stunted appearance."

As regards the Cryptomeria, we have doubts in recommending it even as far north as Philadelphia, and we would make the same remark regarding Deodara; it has, in some favored situations, stood well in our neighborhood, but, generally speaking, it has proved a failure; there may be, and probably is, much in what Mr. Buist says regarding a moist, rich soil for the Cryptomeria, and situation and aspect will have much to do with it, probably. Our native Cedars were everywhere extremely injured by the winter of 1855, and we must not abandon these two beautiful Evergreens without further trial. Cupressus funebris has not proved hardy with us, and the others require further trial.

"*Cupressus*, Evergreen Cypress. It is but very recently that we have been enabled to introduce this family amongst our hardy Evergreens. They appear to be natives of all parts of the globe, and recent introductions render them very interesting shrubs to the planter. They are best planted on lawns, or as single specimens in the shrubbery, or on the margin of walks. They attain considerable height, and will grow in any good soil.

"*Cunninghamia*, sinensis or lanceolata, approaches Araucaria Braziliensis in appearance, but more hardy; requires light, rich soil, and will grow thirty feet high; *scarce*.

"*Eleagnus hortensis*, Silvery Oleaster, a rather tender shrub for this latitude.

"*Eriobotrya japonica*, Loquat. A small tree, with large foliage, nearly equal to the Magnolia, producing a fruit, in the winter season, very similar to an Apricot; grows well in the Southern States.

"*Escallonia*, dwarf shrubs, with rosy red flowers; very desirable for Southern latitudes."

(*To be continued.*)

EDITOR'S TABLE.

Ad-interim Report.—The *ad-interim* report from the Committee of the American Pomological Society, will be found of the highest interest. The new fruits ripened the past season, have undergone the scrutiny of the Committee, and they give their unbiassed opinions in a manner highly satisfactory; their labors will attract the attention of all persons interested in these important topics.

The length of the above report has prevented the insertion, this month, of "Visits to Country Places, around Newport;" Mr. Chorlton's excellent article on "Peas" supersedes one of the "Old Digger's" on the same subject, and contains later information as to kinds to be selected for growth. The interesting biography of Loudon being concluded in the present number, we shall have more space in our next to devote to our correspondents.

Memoir of Loudon.—This graceful memoir is concluded in the present number, and doubtless has interested most of our readers. Mr. Loudon's career was a most useful one; in respect to its close, it resembled Sir Walter Scott's; he was ruined pecuniarily, however, by his own publication of the great work, the *Arboretum et Fruticetum Britannicum*, which was issued, on his own account, at an outlay of fifty thousand dollars; but it sold so well, that only thirteen thousand remained to be paid at the end of 1841, and he died in 1843. The work has since sold extensively, and his debts were paid.

In industry, Mr. Loudon will compare favorably with Sir Walter; he had four periodicals, viz: The *Gardener's*, *Natural History*, and *Architectural Magazines*, and the *Arboretum*, which was published in monthly numbers, going on at the same time, and, to produce these at the proper time, he literally worked night and day, suffering much pain, and writing with two fingers of his left hand. Never did any man possess more energy and determination; whatever he began he pursued with enthusiasm, and carried out, notwithstanding obstacles that would have discouraged any ordinary person.

His labors as a landscape-gardener are too numerous to be detailed, but he always considered the most important was laying out the arboretum so nobly presented by Joseph Strutt, M. P., to the town of Derby.

The Advertising Sheet.—Nothing marks the increased influence of the *Horticulturist* more than the demand for space in its advertising sheet; it seems likely to exceed, in extent of pages, the work itself. The present month's issue is an interesting resumé of the business of the country, north, south, east, and west, which will command attention. The printer has been curious enough to sum up the number of trees and shrubs in the thirty-four pages that have passed under his critical eye, and finds them to amount to two million and upwards, independent of those without enumeration of the quantity.

The importance of concentrating in one journal the whole advertising of this extensive and flourishing business must be apparent; we receive incidentally from correspondents the strongest evidence of its value to both buyer and seller, and were we at all disposed to be jealous, might take exception to remarks which indicate that it is the first part to be

read. The publisher will give increased attention to this department, as the circulation increases, and as he is enabled to spread this information before the purchasers, he may be obliged to increase his charges to prevent the advertising from exceeding the limits of the post-office regulations. The 20th of the month is now rather late.

Calendar of the Vineyard.—We add, by the kindness and knowledge of R. Buchanan, Esq., of Cincinnati, a Calendar of the operations in the vineyard, which is not only a new feature, but a most valuable one. Coming as it does from the vicinage of the vineyards, and penned by one of the most intelligent and observant of the cultivators of the vine, and an esteemed writer upon it, we feel much pleased in presenting such results to our readers.

The Illinois State Horticultural Society has organized in the right spirit, and discussions on fruit have been held at Decatur—E. S. Hull, President, J. E. Starr, Recording Secretary. This Society will be extremely useful, and we shall be pleased to receive its reports.

Pears again.—We had hoped to have got rid of the subject of "Pears on the Quince," leaving them to the test of time, but a cogent reply of Dr. Ward to Mr. Field's article in last number, will require insertion at our hands, and, if we possibly can find room, shall appear next month.

The Cold of January has been even more severe than during the previous winter, and has, we fear, again done injury to fruit and other trees. The snow, however, proved a protection to wheat, and, to some extent, to plants and even trees. The cold "cycle" which has been upon us, it may be hoped, has reached its maximum. In this region, thermometers exhibited various degrees of cold from 20° below zero to 6° at the same time, and at not greater distances than a mile or two apart, proving that there are eddies of cold air not entirely influenced by elevation. It is believed, the intensity of cold has been as great as any of the same duration during the settlement of the country. Skaters have had their amusement at New Orleans, and in much of the southern country there has been great suffering, while, at the north and northwest, it has been intolerable; thermometers at 40° below zero are so often reported as not to be chronicable, and we are obliged to leave that matter to some accurate meteorologists.

Fruit in Canada.—In looking over the December number of the *Horticulturist*, I saw an article—written by Cockburn and Brown, of Montreal—speaking of the apple-tree being killed down; they say it is a thing almost unknown with them. I find it one of the worst things to contend with. Losing the terminal bud causes a crook at every year's growth, which injures the looks of our trees very much. And another thing we have to contend with—the heaving up of trees in the spring. In the nursery row we can manage them very well, by furrowing up in the fall, but seedlings are difficult to manage. I am aware that draining has a great deal to do with it. Perhaps Mr. Brown, or some other gentleman, will give some information, through the *Horticulturist*, touching this matter. He speaks rather unfavorably of the Early Harvest and the Baldwin. I am happy to say, that those two famous apples are the most hardy we have here on the northern shores of Lake Ontario; as for the Fameuse and St. Lawrence, they are very productive; Burrasso, rather a poor keeper; Keswick Codlin, very hardy, and comes into bearing first of all; Hawthorndon, a great bearer; Alexander, a fine grower; Read Astrachan, promises well; R. I. Greening, a straggling grower, but makes a fine tree; Ribston Pippin, a fine grower, and one of our most profitable apples; Northern Spy, I could not recommend for general cultivation; Fall Pippin, Spice Sweet, Talman Sweet, and Gravenstein, are among our very best apples.

Plums. We have a difficulty in budding the stock on account of the blight, and we have the black rot to contend with, and the little Turk, the curculio.

Cherries suffered very much by the hard winter or spring, especially the Heart kinds.

B. Losee, *Nurseryman.*

Cobourg, Canada West.

A New Fruit.—Hooker's *Journal of Botany* describes a new fruit—the *Durian of Borneo*—thus: "The Durian is a fruit of which we hear little, where all praise is given to the Mangosteen, while the Durian is generally mentioned as a fruit much liked by natives, but whose offensive smell renders it disagreeable to Europeans. There is, however, no comparison between them; the Mangosteen resembles a peach or a grape, and can hardly be said to be superior, if equal, to either: the Durian, on the other hand, is a fruit of a perfectly unique character; we have nothing with which it can be compared, and it is therefore the more difficult to judge whether it is or is not superior to all other fruits. The Durian grows on a large and lofty forest-tree, something resembling an elm in character, but with a more smooth and scaly bark. The fruit is round, or slightly oval, about the size of a small melon, of a green color, and covered with strong spines, the bases of which touch each other, and are consequently somewhat hexagonal, while the points are very strong and sharp. It is so completely armed, that, if the stalk is broken off, it is a difficult matter to lift one from the ground. The outer rind is so thick and tough, that, from whatever height it may fall, it is never broken. From the base to the apex, five very faint lines may be traced, over which the spines somewhat curve and approximate; these are the sutures of the carpels, and show where the fruit may be opened with a heavy knife and a strong hand. The five cells are silky-white within, and are filled with a mass of firm, cream-colored pulp, containing about three seeds each. This pulp is the eatable part, and its consistence and flavor are indescribable. A rich custard, highly flavored with almonds, gives the best general idea of it, but there are occasional wafts of flavor that call to mind cream-cheese, onion-sauce, sherry-wine, and other incongruous dishes. Then there is a rich glutinous smoothness in the pulp which nothing else possesses, but which adds to its delicacy. It is neither acid, nor sweet, nor juicy; yet it wants neither of these qualities, for it is in itself perfect. It produces no nausea or other bad effect, and the more you eat of it the less you feel inclined to stop. In fact, to eat Durians is a new sensation worth a voyage to the East to experience. The smell of the ripe fruit is certainly at first disagreeable, though less so when it has newly fallen from the tree; for the moment it is ripe it falls of itself, and the only way to eat Durians in perfection, is to get them as they fall."

Mushrooms.—These valuable esculents may be propagated with greater advantage than by the old mode; the spawn may be broken fine, the largest bits not exceeding a marble in size. Thus prepared, *sow* it over the surface of the bed, and beat it down at once firmly, and cover it with soil. This plan will require but half the quantity of spawn, and the mushrooms are diffused over the whole surface, no loss being sustained in gathering. They produce sooner by this mode. We have had good success, the present winter, with spawn obtained from the Messrs. Thorburn, N. Y., after failing utterly with that from others.

Nuts and Seeds.—A large Christmas box was carried out, from this region, by the Persia, which will be gratefully received by Sir William Hooker, at Kew Gardens, near London. They are a present from Dr. Darlington, and consist of nuts and seeds of our forest-trees, collected by Joshua Hoopes, Esq., at the request of Sir William. Last May, the doctor sent three boxes containing sections of our forest-trees and shrubs, each section a foot in length. These interchanges of value are highly interesting mementos, and serviceable.in

the highest degree. Our botanical friend has lately received Dr. Bromfields *Flora of the Isle of Wight*, a very complete and interesting work, which frequently mentions the *Flora Cestrica* of the recipient. Dr. Bromfield recently died, during his oriental tour, at Damascus.

Peabody's Seedling Strawberry is now ready to be sent out. Mr. P. requests his subscribers to inform him when they wish to receive the plants. Address Charles A. Peabody, Columbus, Georgia.

The Societé Régionale d'Acclimation of Nancy, have issued a curious pamphlet entitled "Une Précieuse Conquéte à Faire," in which they earnestly recommend farmers to breed horses for human food!

The Journal of the United States Agricultural Society for 1856, contains matter of great interest.—We trust it will be in the hands of all interested in the topics discussed, and can only point to a few of the matters it contains, hoping thereby to call attention to them. The "Relations of Meteorology to Agriculture," and Lieut. Maury's remarks, are especially worthy of perusal. Townsend Glover's paper on "Entomology as applied to Agriculture," will be read with deep interest and profit. The "True Value of Chemical Analysis of Soils," by Dr. John D. Easter, every farmer should study; that on "Colza Oil," by Dr. Ware, demands further experiment, as promising profit from the cultivation of this plant. The "President's Addresses," and some of those of members and guests, may be read with profit. Altogether, this volume exhibits a spirit of investigation and progress highly creditable to our country and countrymen. The attendance exceeded, in numbers, any meeting of the kind. Louisville, Kentucky, is to be the place of holding the next meeting, and we consider this a judicious selection.

Travellers.—The *Gardener's Chronicle* regrets, with many others, that the missionary, Livingstone, who has spent sixteen weary years in exploring Africa, should have been totally ignorant of botany and gardening. He has made some sad mistakes in attempting to give information, and thus thrown discredit on what may be true. This want of education is deeply to be regretted in many travellers. For instance, pleasant as Bayard Taylor's books of travel may be, he appears never to have had his attention turned to distinguishing one tree from another, and we read of countries of the highest botanical interest with scarcely an allusion to the vegetation that can be understood. Children's gardens, and a little knowledge infused at school, should be attended to.

Flore des Serres.—The three last numbers of this journal, unrivalled for the beauty of its illustrations, contain figures of the following new plants superbly drawn and colored: Lælia purpurata; Dircæa blassii; Mandevillea suaveolens; Dendrobium bigibbum; Correa cardinalis; Pentapterygium flavum; Primula rosea; Salvia Boliviana; Bulbocodium verum; Dianthus sinensis, varietates; Wistaria frutescens, var. Magnifica—quite an acquisition; Barbacenia hybrides; Colchicum variegatum; Salvia splendens, var. Soucheti; Thalictrum aneminoides, var. flore pleno; Fuchsia, var. Rosea; Azalea Indica, var. Beauté d'Europe; Cypripedium purpuratum; Hibiscus marmoratus; Tropæolum azureum grandiflorum; Pansies, Imperatrice Eugenie and Leonidas; Stenanthera pinifolia; and Iochora Warscewiczii. We wish we could impart all of their beauty to these pages.

Of the new Wistaria frutescens, *var.* Magnifica, the *Flore* says: "For more than a century before the introduction of the Glycine of China, Europe possessed the American species, now named *Wistaria frutescens*, of which the present is a hybrid variety, raised from seed by M. Delaville, Sen., gardener near Clermont (Oise). The flowers are borne in graceful clusters, of a pale lilac, with a yellow spot. It is said to exceed others in the abundance

of its bloom, which makes its appearance towards the close of June. The readiest method of propagating it is by grafting."

Gossip.—The spores of some of the fungi are said to be omnipresent, and so numerous are they, that Fries calculated more than 10,000,000 to be present in a single individual of the Lycoperdon of large size. Bauer estimated that 7,840,000, not of the sporules, but of the individual plants themselves, belonging to the common smut—the *Urego Segetum*—would be required to cover a square inch. Dr. Daubeny, of England, and Dr. Mitchell, of Philadelphia, have written papers of much research, to prove that fungi are the cause of cholera and numerous diseases.——Some species of lichens are extensively collected, to make dye-stuffs; cudbear, a well-known article of commerce, is prepared from lichens collected by the peasantry in various parts of Europe.——The horseradish-tree of the West Indies—*Moringa*—attains the height of twenty-four feet in nine months, and that in a stony, poor soil. The power of vegetation within the tropics, is illustrated by the above as well as by the growth of the bamboo, which sometimes shoots fourteen inches in the course of twenty-four hours. The extraordinary productiveness of the tropics, is by many considered an inestimable advantage, but the counterbalancing evil is the astonishing growth of the weeds. The poet may sing

> "Of the redundant growth
> Of vines and maize, and bower, and brake,
> Which nature, kind to sloth,
> And scarce solicited by human toil,
> Pours from the riches of the teeming soil,"

but the planter finds that nowhere is more care and industry required than within the tropics, to make agriculture profitable. The weeds exhaust and smother everything that is not frequently attended to.——Why is it? Our government land costs one dollar an acre on an average, and champagne two dollars a bottle. How many a man dies landless, who, during his life, has swallowed a township—trees and all.——Captain Pope, who was in command of the expedition to dig artesian wells in Texas, reports a novel source of fuel, in the roots of the mesquit, which are found preserved beneath the soil—perfectly sound and hard—extending sometimes to the incredible depth of seventy feet!——The sales of the land on draining the Lake of Haarlem, produced sufficient money to repay all the expenses incurred. Sixteen years of labor and care were exhausted before the work was completed. As soon as the grounds were dry, they were covered spontaneously with a multitude of plants, reeds, and willows; these prevented walking, being soon higher than a man. A heavy roller was passed over the brittle plants after the willows are pulled up, and the fallen stems covered with the earth taken from the ditches, and rape-seed was immediately sown; the rape overpowers the next growth, and the land is then ready for grain. After harvest, they work with large wooden shoes on the horses' feet, when the soil is yet too soft. If the horses sink, they leave them on the spot.——Though the Berberries are commonly treated as shrubs, some of them may be formed into the most beautiful and durable small trees that can be introduced into gardenesque scenery. The common berberry, when pruned up to a single stem to the height of eight or ten feet, and all suckers from the root, and all side buds from the stem removed at the moment they appear, will form a fine orbicular head, with the extremity of the branches drooping; and this pendulous appearance will increase with the age of the tree. Such a tree, covered, as it will be, every year, with yellow blossoms and scarlet fruit, may rank, in beauty and value, with the handsomest. The low-growing berberries—now mahonias—are very beautiful in masses. The common berberry, trained as above, will reach the height of thirty feet, and endure for centuries. In a catalogue for 1825, the now common Mahonia aquifolium is priced at twenty-five dollars!——The best plan to forward cut flowers to a distance without injury, is to prepare a cylinder of tin

three or four feet in length, and eight or nine inches in diameter. In the centre of this, place a tin tube, of an inch in diameter, which fits into sockets in the bottom and the lid. Round this tube the flowers are tied, and it is inserted in the bottom; the centre tube is now filled with water, and corked, and the lid put on, in which is the socket which embraces the tube. The case may now be sent to any distance, the natural moisture and the water keeping the flowers cool and fresh. A little damp moss, tied under the flowers, will assist this.

Waukesha, Wisconsin, Jan., 1857.

Wisconsin Fruit Growers' Association.—The annual meeting of this Association was held, at Waukesha, on the 14th Jan. The attendance was good, though not large. Some interesting discussions were held. Among resolutions passed, was one in favor of a law for the punishment of stealing *growing* fruit, similar to that of Massachusetts. A meeting for the exhibition of small fruits and flowers was appointed for the last of June, at Whitewater. The fall exhibition will be merged with that of the Northwest Fruit Growers' Association at Milwaukie, in September next. The faith and hope of fruit growers in the Northwest, have been sorely tried in the destruction of our trees the past winter—whole orchards, in some instances, being entirely destroyed, while, in others, "the many were taken, and the few left." Occasionally, an orchard escaped with little or no injury. Generally, fruit-trees have made but moderate growth the past summer; there seemed to be a struggle for life and health, which, in many instances, yielded at last to death, while the tree was loaded with flowers or fruit.

This winter we regard as favorable for the ultimate recovery of the merely injured trees which struggled sickly and weak through the summer, yet determined to live. Snow fell early in December, before hard freezing, to which more has been added from time to time.

H.

Officers of Wisconsin Fruit Growers' Association for 1857.—*President*—Charles Gifford, of Milwaukie. *Vice-Presidents*—Col. H. Crocker, of Milwaukie; G. Kinney, of Whitewater; H. T. Woodward, of Beloit. *Recording Secretary*—Andrew Child, of Delafield. *Corresponding Secretary*—Charles Colby, of Janesville. *Treasurer*—C. C. Olin, of Waukesha.

Executive Committee.—J. C. Brayton, of Aztalan; H. I. Starin, of Whitewater; A. G. Hanford, of Waukesha.

Dexter Snow's Verbenas.—The catalogue for 1857 of Dexter Snow, Chicopee, Mass., is one of the neatest things of the kind we have seen. Cultivating the verbena only, he has given a complete treatise on his particular favorite which all admirers of this beautiful plant should possess and study. His plan of doing business is direct and understandable. He will send by mail, or in boxes by express, and will fill several orders from the same town to save cost of carriage; his prices are moderate, his plants the newest and best.

Mr. Snow has inaugurated a new era in plant growing, and we take pleasure in making it known. (See Advertisement.)

The Orange Raspberry.—As an additional recommendation of Dr. Brinckle's Orange Raspberry, now generally sought for, we have our own, and the testimony of others, that in the form of a jam it retains more thoroughly its delightful flavor than other varieties; it has, in fact, the raspberry taste in perfection.

Catalogues, &c., received.—Catalogue des Cultures de l'Etablissement Horticole de Claude Sahut, à Montpelier, France, 1856-57. Mr. Sahut is extensively engaged in arboriculture and the seed business, and would be pleased to increase his connections with America.

A. Frost & Co., Rochester, N. Y., have issued three catalogues in very handsome style.

No. 1, Descriptive Catalogue of Fruits; No. 2, of Roses and Ornamental Trees; and No. 3, Dahlias, Verbenas, Fuchsias, &c. These "Genesee Valley Nurseries," among the largest in the Union, seem to be not only prosperous, but to be controlled by students and readers.

Catalogues of Select Vegetable, and another of Annual, &c., Flower Seeds, sold by Alfred Bridgman, 874 Broadway, New York, embrace all the varieties of each.

The Rural Annual and Horticultural Directory—from the office of the *Genesee Farmer*—by Joseph Harris. An excellent and reliable, as well as handsome manual, with profuse illustrations.

Descriptive Catalogue of Fruit and Ornamental Trees, Shrubs, Roses, Vines, &c., cultivated and for sale by John W. Adams, Portland, Maine. A capital catalogue in all respects.

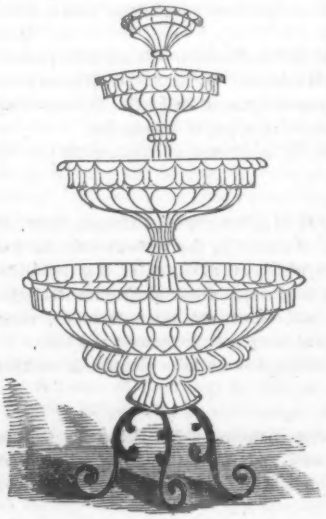
Special Select Catalogue for 1857 of Fruit and Ornamental Trees, &c. Wm. F. Smith.

Rose Cottage Nurseries, late, Tobin's, Augusta, Georgia. Oh! for your climate!

H. A. Dreer's Descriptive Catalogue of Garden and Flower Seeds, Implements, Books, &c., 117 Chestnut Street, near Fourth, Philadelphia. This will be found to be a very useful catalogue, containing a variety of information and instruction.

R. Buist's Select Catalogue of Greenhouse, Hothouse, and Hardy Plants, Philadelphia. Few catalogues issued in this country, have contained the variety of plants here offered for sale at moderate prices. If it were only for the beauty of the typography and engravings, it is worth possessing, but such a list is valuable to turn to at all times. May be had by inclosing a stamp. It contains directions for culture.

Lincoln and Welland Horticultural and Mechanical Society's Circular, setting forth the benefits to be derived from the Association.



Ornamental Flower-Stand. — The annexed figure represents a design for an ornamental flower-stand, to be made of wire, which we commend to workers in this material. Where a greenhouse is well-managed, there will be no difficulty in furnishing it with a succession of camellias, roses, geraniums, fuchsias, azaleas, calceolarias, &c. &c., and it should be the aim of the possessor to preserve the brightness of the scene all through the year. The moment a plant goes out of bloom, it should be removed, and its place supplied with another; for, as to rearing plants in such situations, and in dry rooms, it is wasting one of the best opportunities which art affords us for a display of successive pictures. As well might the actors dress and rehearse before the audience, as a collection of plants be allowed to present themselves in all their preparatory stages to the eye of the visitor or the host. We do not mean by this, to prevent the window culture which gives many so much pleasure.

Washington, D. C.

Dear Sir: I thought of you, to-day, when I received from the Professor of Chemistry of Georgetown College, a great and valuable vegetable curiosity—the greatest, perhaps, in America, in the shape of an enormous Truffle found in Virginia. I showed it to Mr. Mason,

Commissioner of Patents, and produced quite a sensation, as they had published in their report for 1854 only an account of the Piedmontese truffles, not dreaming that they existed so close at hand. We may now hope to have Strasburg pies as soon as some American makes the *fois gras*. My Virginia Truffle weighs one pound eleven ounces, dried, giving double that weight green. It would have sold, in Covent Garden Market, for nine dollars!

[A similar report was circulated some years ago, to the effect that one of the foreign ambassadors at Washington had discovered the Truffle in Virginia, but it was never till now followed by a verification. It has been generally believed that this delicious esculent was not cultivable; more recent information leads us to believe that, like the mushroom, it may be artificially propagated; Dr. Lindley says so; and a Frenchman has lately asserted, without sufficient data, that the Truffle is the result of the stinging of roots of oak-trees by the Truffle fly, which Dr. Lindley denies. We shall probably know more of this ere long.—Ed.]

Answers to Correspondents.—We never object to answering the queries of correspondents, provided they do not require too long a reply, and that they are on topics of general interest, or such as are not readily found in books:—

"The sages say, *Dame Truth* delights to dwell—
Strange mansion!—in the bottom of a well:
Questions are then the windlass and the rope
That pull the grave old gentlewoman up."

As we have got to rhyming, we answer "Betsy W." by saying that she is doing a service by culling from the entire works of Shakspeare his allusions to botanical matters. His felicity in this is as extraordinary as his other apparently intuitive knowledge. The process, now so common, of changing the character of seedling-trees, is thus expressed in his *Winter's Tale*, Act 4:—

"—— You see, we marry
A gentler *scion* to the wildest *stock*;
And make conceive a bark of baser kind
By bud of nobler race. This is an art
Which does mend nature—change it rather: but
The art itself is nature."

(D. W. Ray). Your excellent notice of the Rebecca Grape is superseded by former notices and the official one, in the present number, from the Committee of the Pomological Society. We shall be glad to hear from you again.

(Wm. H. Alexander). We shall be pleased to hear from you.

(H. A. Mish, Harrisburg, Pa.) Tan is an excellent covering for strawberries, both as a manure and a mulch. It should be well spent—say a year from the vat. *New* tan has proved destructive in many instances. It has not been found of service to any other crop.

Don't plant "cuttings, small evergreens, and seedlings," in weedy ground. If you will, depend rather on the hoe and the rake as "weed smotherers."

Sawdust is a superior article to throw amongst raspberries; but useless, in that form, for any other purpose. If you could char it easily, and throw it into the soakings of your dung-yard, it would probably be the best thing you could do with it. Leather chippings from shoemakers' shops, saddlers', &c., make an admirable mulch for the raspberry, and may often be had for the asking.

Best Grapes for a Vinery.—The following list of grapes for a vinery may be relied on, and in this mode we answer many inquirers. The present season will no doubt add the Bowood Muscat and Golden Hamburg, which are to be dispersed in England this spring, and are spoken of as most valuable, of the highest grade of *beauty*, and "best." At present, our list is as follows:—

Best Grapes.—Muscat, of Alexandria; Black Hamburg; Royal Muscadine or Fontainbleu; McCready's Early White Pitmaston; Chasselas Musqué (this Grape is apt to crack, but, in every other respect, among the "best"); Purple Chasselas; Black Prince; Black St. Peters; Decans superb; Grizzly Frontignan.

For Curiosity.—De la Palestine.

For Show and Beauty.—Purple Damascus; Reine de Nice; Flame-colored Tokay; White Nice; Syrian.

To this list many would add Black Morocco, but, without fire-heat, it is a bad setter.

If we could cultivate only one grape, it would be *Black Hamburg*. If three—Black Hamburg, Muscat of Alexandria, Fontainbleu or Royal Muscadine. The Muscat of Alexandria, only with fire-heat, and, without it, White Frontignan.

Best Peaches for an Orchard-House.—The four best Peaches for your orchard-house are the following: Early York (serrated leaf); George IV.; Grosse Mignonne; Late Red Rare Ripe. The best eight will include the above, and the addition of the four following: Matta; Noblesse; Teton de Venus; and Heath Cling. If you object to a cling, omit the last, and replace by a free-stone.

(M. C. K. Hudson, Ohio.) The "Egyptian Bean" sent is unknown to us, and we should suppose it valuable.

McMahon's Book on Gardening, we regret to learn, is out of print; the eleventh edition will be put to press immediately.

W. F. Bassett, W. Groom, and half a dozen subscribers, answers crowded out.

Intermixture of Seeds.—(B. C. C., Wyoming.) Different *varieties* of melon, cabbage, cauliflower, turnip, &c., readily mix when growing even several hundred feet apart. Peas do not mix so readily, because the structure of the flower prevents any other pollen than its own from coming easily in contact with the stigma; *species* mix with more difficulty—seldom, indeed, without artificial aid. Cucumbers, melons, squashes, &c., may therefore be grown tolerably near together, without great danger of intermixture. Ruta Bagas, and white turnips, cabbages, and cauliflowers, not.

(Susan). Verbenas, well taken care of, you will find the best plants for your vases. Mr. G. C. Thorburn's new variety will make a showy exhibition all the season. Also Lobelias.

Blue Rot in Plums.—J. D. L., of Aiken, S. C., asks of pomologists to give some information relative to the blue rot in plums, which worries his fruit more than the curculio. He also wants to know if any reason can be assigned why some plum-trees, probably the General Hand, which are eleven years planted, strong and thrifty, seldom bear, while other varieties have plentiful crops?

(Asa Thomas.) The Manchineel tree (*Hypomane mancinella*) attains a large size on the sea-coasts of the West Indies and our own continent, being common at Key West, where it is found of the height of thirty or forty feet. It has the aspect of the pear-tree at a distance, while the fruit resembles, in appearance and scent, a small apple, which has deceived your correspondent. The abundance of the fruit is so great, that the ground appears to be paved with them. They possess very little pulp, the interior being occupied by a deeply grooved nut as large as a chestnut. No animals, except goats, and, of birds, the maccaw, choose to feed on them, and they become brown, dry, and spongy, and as useless as they are deleterious. The juice of the tree is poisonous. Catesby was blind for some days in consequence of getting it in his eyes. It is said sleeping under the tree is fatal; oily substances are the best remedy for this poison. The poisonous Upas approaches nearer to the anomalous manchineel than to any plant of the Autocarpeæ. The seeds, formerly so much employed for buttons in England, are the produce of the soapberry-tree, *sapindus saponaria*,

of the West Indies, which produces soap, as does an exclusively American tree, S. marginatus, which is found on the coast of Georgia and Florida, and, in the interior, as far as Arkansas. The berries are about the size of a cherry. The soap is found in the fleshy pulp of the berries, and also in the root, but, if it is used too frequently, and of too great strength, it is apt to burn and injure the texture of the cloth.

APPLES.—DEAR SIR: I hereby send you, per express, two specimens of two *new* varieties of the apple. First, the *Rome Beauty*. Its diameter is four and two-thirds inches, weight, fourteen ounces, and keeps until May and June; is a prolific bearer, and blossoms from ten to fifteen days later than other varieties in its vicinity. They have succeeded as far south as New Orleans, and as far north as Columbus, Ohio. It is a rapid grower, and an *early* bearer.

Second—*Crawford Keeper*. Origin, seedling; weight, nine ounces; keeps until August. Remains sound and hard all winter and spring, and never loses its flavor. The tree is a large, heavy grower, requiring to be set forty feet apart, owing to its massive form. The original tree now living, aged twenty-five years. At fourteen years from bearing, there was picked from it, in 1855, fifty-seven bushels of good merchantable apples. This being a *very* hardy apple, will undoubtedly succeed well as far north as Maine and the Canadas. Both these varieties originated near Burlington, Lawrence County, Ohio—the extreme southern part of the State—and are largely cultivated, with abundant success.

Yours, respectfully, J. E. WOOD.

Iron Furnaces P. O., Scioto County, Ohio.

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324 WALNUT STREET, Dec. 8, 1856.

DEAR SIR: I send you a China quince (*Cydonia sinensis*) which grew at Columbus, Georgia. The tree is some eighteen or twenty feet in height, and was, within a few days, *loaded* with fruit. I understand that the plant was obtained in the West Indies. It grows well at Columbus, requiring no protection, in the open air.

M. Lorseleur Deslongchamps, in the *Dict. des Sci. Nat.*, under the article "Coignassier," says this quince attains a height of fifteen to twenty feet. The blossoms are eighteen or twenty lines in breadth, and of a fine rose color. It was introduced in Holland at the close of the last century, and has been in France since 1802, fruiting for the first time in the *Jardin du Roi*, in 1811. It was hardy at Paris, growing in the open air in that city. M. Deslongchamps considers it a good fruit. Your obedient servant, C. D. MEIGS.

J. J. SMITH, Esq.

This fine specimen measured eleven and a half inches, in circumference, by fourteen and one-fourth inches, and its weight was one pound and a quarter. It is the fruit of the flowering quince, Cydonia Japonica, grown here for the beauty of its bloom, the fruit being with us utterly worthless, and so hard, as to be turned in a lathe. Dr. M.'s specimen *looks* so tempting, that we have little doubt it would make a good jelly. The difference of the Georgia climate from that of Pennsylvania, is very marked in this fruit.

J. JAY SMITH, Esq.: *Potatoes* are now treated to a drying process; they are first deprived of their skins, and properly prepared, fresh currents of air moved in contact with the potato pulp by machinery. The material is made to take the shape of tubes, maccaroni fashion, and, when dry, is broken in a proper mill into the form of what is called "samp," or hominy; it has lost nothing but water, and being placed in tin canisters, the weight of four pounds is reduced to one, and it is ready for long voyages or travels, retaining all its taste and virtues as well or better than ship crackers. The manufacture is in Hinesburg, VERMONT.

To Nurserymen.—Attention is called to the advertisement of G. B. Cheyney, of an old established nursery for sale, which we are assured offers a good opportunity for an investment.

Boston, 15th of December, 1856.

J. J. Smith, Esq., Phila.—Dear Sir: I have just had the pleasure to receive the last number of the *Horticulturist*—a pleasure and privilege I have enjoyed monthly, from its commencement in July, 1846, and I take the liberty of an old subscriber to ask your attention to a want which is already seriously felt, viz: a general index to the past volumes. A work so eminently practical, and containing such a vast amount of valuable information, becomes a book of reference, and there are few books in my own library so much used in this way. I am sure not a week passed, in the last year, in which I have not had occasion to look over the ten indexes of the first ten volumes. This labor becomes appalling in prospect of the success which seems to be attending your able conduct of the work, and which guarantees a long continuance of my monthly enjoyment. I find that this feeling is common to many of my friends, and am induced to believe that a general index of the first ten volumes would meet with a very ready sale, at a remunerative price. A periodical index at the close of each ten volumes, would give a permanent character and value to the journal, as if it were an elaborated treatise which would be otherwise incompatible with its periodical and descriptive form. As the labor would be of collation only, it would not require much of either time or skill. I shall be glad to hear if the plan meets with your approval, for, if there is a probability of receiving such an addition, I shall wait for it, to bind in with my eleventh volume.

Excuse this freedom, but my acquaintance with its founder gives me an affection for his work; and, when I find you drawing on the resources of my friends, Sargent and Lürman, I do not feel that *you* are altogether a stranger. Very truly yours, J. J. D.

[We are much obliged for the suggestion, but scarcely think it would at present pay the expense necessary to be incurred. A general index, however, may some time be both convenient and necessary, and if we hear of a sufficient demand, shall be forthwith made. —Ed.]

Iowa City, Dec. 28, 1856.

Dear J——: Iowa City contains about six thousand inhabitants, and six churches, and three public schools (now building.) The capitol is "bird's-eye" stone, and was built some fifteen years ago. The weather, at present, is a mixture of rain, snow, &c. In some places, the land is very good; timber is very scarce—wood being five dollars per cord! In September, the wild plums are ripe, and crab-apples and grapes; the plums grow wild all over the country; there are no chestnuts here, but plenty of hazel-nuts. Fruit is very scarce out here. I have not seen a peach since I have been in Iowa. Apples are selling at five dollars per barrel. This is a great place for game; there are prairie chickens, quails, turkeys, deer, elks, bears, &c. You must not believe all you read in the papers; the speculators praise up their land in this way. Yours, truly, Robert Hicks White.

Horticultural Societies.

Pennsylvania Horticultural Society.—The following gentlemen have been elected officers for the ensuing year: *President*—Gen. Robert Patterson. *Vice-Presidents*—James Dundas, R. W. Keyser, Robert Buist, B. A. Fahnestock. *Treasurer*—John Thomas. *Corresponding Secretary*—Thomas C. Percival. *Recording Secretary*—Thomas P. James. *Professor of Entomolgy*—Samuel S. Haldeman, A. M. *Professor of Botany*—William Darlington, M. D. *Professor of Horticultural Chemistry*—Robert Hare, M. D.

ILLINOIS HORTICULTURAL SOCIETY.—A horticultural meeting was held, at Decatur, on the 17th of December, at which an "Illinois State Horticultural Society" was organized. The following officers were elected: *President*—Dr. E. S. HULL, Alton. *Vice-Presidents*—R. W. HUNT, Naperville; W. H. MANN, Bloomington; L. SHAW, Tremont; WM. STEWART, Payson; S. FRANCIS, Springfield; Dr. KELL, Paris; JOHN P. REYNOLDS, Salem; Dr. CONDON, Jonesboro'. *Corresponding Secretary*—A. B. GALUSHA, Lisbon. *Recording Secretary*—JAMES STARR, Alton. *Assistant Recording Secretary*—F. H. PHENIX, Bloomington. *Treasurer*—Dr. B. F. LONG, Alton.

CALIFORNIA STATE HORTICULTURAL SOCIETY.—We have received from Mr. Wm. Daniels, of San José, California, the account of the formation of a State Horticultural Society, which is destined to be of great importance in communicating to the rest of the world accounts of the fruits, &c., of that great commonwealth. F. W. Macoudray, of San Francisco, is President—O. C. Wheeler, of Sacramento, Secretary.

Calendar of Operations.

MARCH.

THE VINEYARD.

BY R. BUCHANAN, CINCINNATI, OHIO.

You have requested me to furnish you with a *Monthly Vineyard Calendar* for your valuable magazine. I shall do so cheerfully, and with a hope that it may, in some measure, assist to extend the cultivation of the vine. In whatever aspect this new branch of agriculture may be viewed, its usefulness will be acknowledged by all unbiassed minds.

The cultivation of the vine is rapidly on the increase all over the West and Southwest. The uplands of North and South Carolina, Tennessee, and Georgia, have recently been discovered to be admirably adapted to the growth of our *great* wine grape, the *Catawba*. There it is getting back to its *native locality*, after years of wandering over the Middle and Western States. The sale of cuttings and grape roots in Cincinnati alone, will be about 1,500,000 of the former, and 300,000 to 400,000 of the latter, during the present season.

It is with some diffidence that I offer directions for the cultivation of the vine to your numerous readers, scattered, as they are, over the whole Union. But I trust I may be pardoned for my presumption, when I state that the rules here given are such as are practised by the best vine dressers in this vicinity. The intelligent cultivator elsewhere, will of course make due allowance for the difference of climate and soil.

With some vine dressers, this is the great month for *spring pruning*, but it is found best to prune, in any mild and open weather, in February—never in hard, freezing weather—so that too much work may not be thrown into March. Some commence pruning late in November, and continue all through the winter, when the weather permits. This will be the mode best adapted to the South.

In adopting the *spur* and *bow* system—which is in general use in this vicinity—the best cane or branch of last year's growth is selected, and cut back to six, eight, ten, or twelve joints, according to the strength of the vine; this is to form the bow. The bow of last year is cut away. Another cane, *below* this, is cut back to two joints, and left for the *spur*, from which the bow will probably be formed the succeeding year, the object being to keep the stock or stem of the vine down to one to two feet from the ground. The new or last year's wood, trimmed from the vines, is then cut into lengths of twenty to twenty-four inches, and tied up, with willow ties, into bundles of one hundred to two hundred, and kept in a cool, damp cellar, or buried on end with the buds a few inches in the ground, to be ready for sale or for planting when the ground opens in April.

In preparing cuttings, reject the small spindling tops of the vine, and put up none but the strong, well-ripened wood, and if a piece of the old wood is left on the cutting, it will better assist it to strike root.

In any open, *dry* weather in this month, manure may be put in if required, and walls and trenches repaired, if any, but never when the ground is wet. Toward the latter end of the month, the stakes may be driven tight, and any broken ones replaced. And, late in this month, should the buds begin to swell, the bow may be formed by fastening the centre of the cane to the stake with a willow tie, and bending round and fastening the point (or upper end) to the stake at the base of the bow with another willow tie. This should be done, in moist weather, in the forepart of the day. The vine is then more pliable, and less liable to break in bending.

Training on trellises is very simple. The vine is cut down in judicious proportion to its capacity, and spurs of the new wood left from two to ten joints, according to their position on the trellis, and fastened to it with willow ties.

Any vine that may have died, may be replaced by putting down a good layer from the adjoining vine, as soon as the root is out of the ground. R. BUCHANAN.

Cincinnati, Feb., 1857.

BY WILLIAM SAUNDERS.

VEGETABLE GARDEN.—The earliness of crops is much accelerated by the application of thoroughly decomposed manure at the time of sowing; the matters for absorption are thus presented in a highly concentrated form to the roots, and the plants more speedily arrive at maturity. Much also depends on the state of the soil at the time of sowing. It is surprising that so little attention is given to draining by those who are interested in securing early crops; drained ground is always in a fit condition for working much sooner than that undrained. Draining, also, by the greater efficiency it confers on water as a solvent of plant food, increases the available supply of the soil, and the rapidity of this supply depends upon the aggregate surface of particles presented to the dissolving agent. Reduce a soil, therefore, and the roots of plants will have an increased pasturage. Hence the benefit of repeated culture, such as digging, forking, hoeing, &c., and hence, also, the beneficial influence of frosts on soil. Frost is not a fertilizer, but as water expands in freezing, and as the crystals of ice pervade the entire substance, a diminution of the particles follows after thawing, increasing the soluble surface. So far from diminishing the necessity of applying manures, the increased power of manufacture thus conferred on the soil must be accompanied by an increased supply of the raw material, if a permanent benefit is to be realized.

GRAPERY.—There is no doubt that the architecture of graperies admits of much improvement. According to present forms, the space for growth is limited, and the method of training objectionable; the amount of cubic feet inclosed is so small, that sudden changes of temperature are unavoidable—more particularly, hygrometric changes, which are more injurious than is generally supposed. The method of training the vines close up to the sloping glass, and the consequent exposure of the fruit to alternations of atmosphere, is a practical difficulty in cultivation. Repeated observation leads to the belief that vines trained on perpendicular trellises are seldom subject to mildew; the fruit is then protected and nearly covered by foliage, which defends it from injurious external influences.

It would be an interesting experiment, and one in which we would have much faith, to cover in a large space on the principle adopted by Paxton in the erection of the far-famed Crystal Palace. A square structure, with upright sides ten feet high, covered by a series of small spans laid on horizontal rafters, could be made to inclose a quarter of an acre of *border* at an expense not greater than is frequently incurred in houses eighty feet by twenty. The plants could then be planted in rows as those in out-door cultivation, and trained on similar trellises. Such a house would be worthy the name of grapery.

SHELTER.—This is an important subject for gardeners and fruit growers, and has of late been frequently adverted to by horticultural writers. Strawberries, raspberries, currants, dwarf pear-trees, and, indeed, all small fruits, are more or less injured, yearly, by the cold, drying winds of winter and spring. Evergreen hedges are at once the most beautiful and efficient protection, and the American arbor vitæ the best plant to produce them.

FLOWER GARDEN AND PLEASURE GROUND.—It is more difficult to arrange small places satisfactorily, of from one to three acres, than those of fifty or a hundred, especially when the attempt is made to develop all the features of the large extent in the smaller. The smaller the grounds, the more necessity of discrimination in the selection of trees and shrubs employed. Attention should be given not only to the height and size, but more particularly to the beauty and profuseness of foliage. Trees of compact and pleasing habit, and large foliaged shrubs, should be selected. Of Evergreens, the Norway Spruce Fir, the Silver Fir, Hemlock Spruce, Cembrian Pine, Pinus pumilis, White and Black American Spruce, Pinus excelsa, among trees; and Mahonias, Rhododendrons, Ilex latifolia, Euonymus japonica, Aucuba japonica, Kalmia latifolia, as shrubs. These should mostly be planted in masses of two, three, or more plants. Of deciduous trees, the Sugar, Norway, and Tartarian Maples, Horse Chestnut, English Alder, Judas-tree, Kölreuteria, Osage Orange, Magnolia umbrella, Virgilia lutea, and such shrubs as Virginian fringe, Euonymus latifolia, Hydrangea quercifolia, Ligustrum rotundifolia, Mist bush, Spirea Reevesii, Large-leaved Lilacs, Wegelia rosea, Viburnum oxycoccus, Magnolia purpurea, and M. conspicua, and Dwarf Horse Chestnut, are a few of the kinds alluded to.

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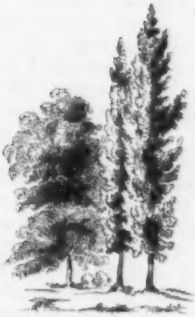

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